JANUARY 13, 1945

Railway Age

Founded in 1856

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SERIAL RECORD
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COPY
GIFT

IT'S A GREAT NEW DAY FOR RAILROADING

Per

Memo re: progress

To date 83 railroads
and heavy industries
in the United States have
in regularly scheduled service
more than 1800 units of
General Motors
Diesel locomotives

and the number is growing as wartime demands for motive power dictate.

GENERAL MOTORS LOCOMOTIVES

★

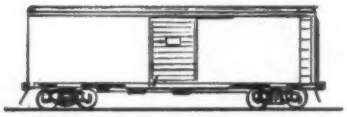
ON TO FINAL VICTORY
BUY MORE WAR BONDS

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS CORPORATION · LA GRANGE, ILL.

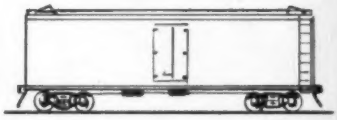
UNIT TRUCK

Has Established its Economy
In all Types of Freight Equipment
NOW IN SERVICE

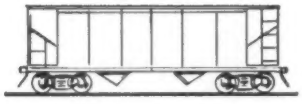
13783
BOX CARS



507
REFRIGERATOR

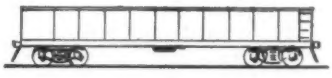


7761
HOPPERS



265
PULP WOOD

2450
GONDOLAS



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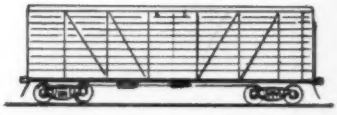
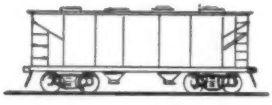
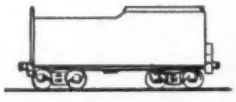
STOCK CARS



1115 COVERED
HOPPERS



8 LOCO
TENDERS



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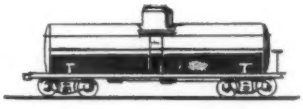
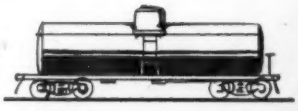
TANK CARS



3 AUXILIARY
WATER CARS



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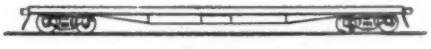
FLAT CARS



27867
TOTAL

UNIT TRUCK CORPORATION

140 CEDAR STREET — NEW YORK 6, N. Y.

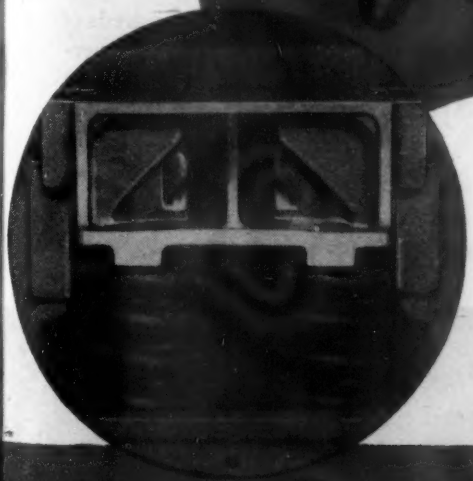
Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 118, No. 2.

THE TRUCK FOR TODAY'S NEED...TOMORROW'S SPEED!

For more MILEAGE and less MAINTENANCE...

Ride-Control!

NO SPRING PLATES
NO SPRING PLANKS



The A. S. F. Ride-Control Truck (A-3) can be relied upon for easy-riding, dependable service with low maintenance expense. And chief among the reasons-why is the fact that the Ride-Control prevents the development of destructive harmonic oscillation. All bolster motion, both vertically and laterally, is cushioned and controlled by spring pressure to assure smooth, easy operation. Then, too, the Ride-Control Truck is rugged and simple in construction. Without spring plates or spring planks, providing the simplest of assemblies, this truck is designed to keep more freight cars moving, more of the time.

AMERICAN STEEL FOUNDRIES

CHICAGO

TRADE-MARK REG. U.S. PAT. OFF. TIMKEN CAST STEEL

then he said to himself

"Alas, poor world, I knew it well"

EXPLAINING how the old map is being rolled up and a new map is unrolling before us . . . Field Marshal Jan Christiaan Smuts, Prime Minister of South Africa, went on to warn:

"We are living in a world where we are FORCED to a fundamental revision of old concepts. The old world that we knew has GONE and it will NOT RETURN!"

Be thankful that to many factory men here in America that conviction has already been absorbed, because the urgency for production . . . the urgency for development...the urgency for redesign has made evident, throughout these critical supply months, the need for better concepts.

By following old concepts in manufacture, the materiel flowed too little and too late and too ineffectively.

Be thankful for the hundreds of new concepts that are now overcoming our peril. For example:

"A New Map is Unrolling," *he says*

Look, Marshal Smuts, how fundamental thinking is revising old concepts in the maintenance of railroad equipment.

SAVES $17.59 PER COUPLER

NEW MAP . . . the result of fundamental thinking with Arc Welding. This Class I railroad saves more than $20,000 annually by arc welding cracked and worn car couplers. Average saving per coupler is $17.59.

PROCEDURE: The couplers are clamped in a fixture as shown. Cracks are vee'd out and welded with ¼-inch "Fleetweld 5". Friction-worn sides are built up to original dimensions with the same electrode. The square ends, when battered excessively, are built up by edge-welding a 4¾" x 5¾" x ¼" steel plate over the worn surface.

The Lincoln Engineer nearby will gladly help you revise old concepts with Arc Welding.

THE LINCOLN ELECTRIC COMPANY • CLEVELAND 1, OHIO

America's greatest natural **recourse**

ARC WELDING

"speaking of railway safety devices . . don't forget DIXIE CUPS"

"REMEMBER the old tin drinking cup on the train? I do. But how times change! For years now, along with everything else railroads have done for the safety and comfort of passengers, we've given 'em individual paper cups . . . Protection from contagion is as important as protection from accidents."

★ In connection with your post-war planning, Dixie Cup Company invites the inquiry of railway car designers relative to our latest developments in cup dispensing equipment, cups and containers—for water service, lunch bar and club car service. We will welcome discussion of adaption or creation of equipment to fit in with your design requirements. Address Railway Division, Dixie Cup Company, Easton, Pa.

"STANDARD IN RAILROAD SERVICE FOR OVER 30 YEARS"

MOVING MOUNTAINS OF MUNITIONS

All around the world, before D-Day's thunder rolled up from the cliffs to Ste. Mere Eglise and Bayeux, the Military Railway Service of the Army Transportation Corps had carried hell-on-wheels war to the Axis.

The story behind the story of the armies battering their way from the Normandy beachhead is the story of supply—and that, in gallant measure, is the job U.S. railroaders have done.

The first Allied ship to dock at the restored port of Cherbourg unloaded eight locomotives and twenty-four freight cars. Even earlier, the same kind of heavy rail equipment was being landed on channel beaches from LST boats equipped with railroad tracks.

Nine days after D-Day, American railroaders were restoring and operating French railroads, often under fire from Nazi artillery and snipers. For months, U.S. bombs had been blasting these rail lines, tearing and shattering equipment. But trained U.S. railmen took over in a triumph of rehabilitation.

Ancient locomotives were patched to serviceability, and new ones brought from shipside; decrepit freight cars were restored to carry goods up where the artillery was booming. Soon U.S. enginemen, high up in locomotive cabs, were waving that universal Yankee "hello" as they wound through shell-battered towns to the front.

Major General Frank S. Ross, chief of transportation in the European theater, recently declared, "The first trainload of supplies moving to the front passed through Paris on September 4, and since that day, the trend of total daily tonnage has been steadily increased until it has now reached a stream of supplies which will meet the needs of the fighting man at the front. The vast volume of these supplies could be transported in no way except by rail. We feel confident that, when history is written, the contribution of the American railroads in the form of railroad men in the Transportation Corps' Military Railway Service will be one to which we can always point with pride."

That's been the story everywhere.

In Algeria and Morocco and Sicily, in Iran and India, in difficult mountains and remote back-country as in battle areas, men trained on America's railroads are highballing night and day for Uncle Sam.

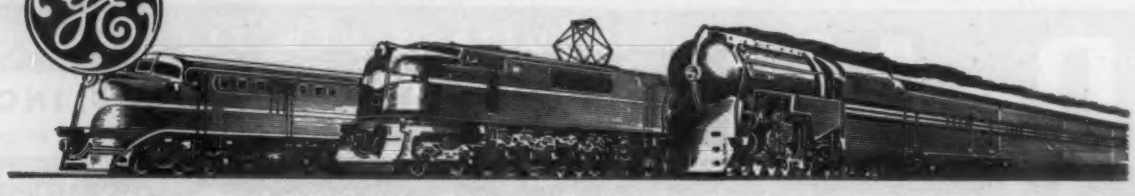
*—The Trackwalker**

* * *

Alco-G.E. steam and diesel-electric locomotives (the large number is censored) are supplying U.S. armies and those of our Allies from Iran to Alaska. When it can be told, the story of their part in this war will be a revelation of ingenuity in design, speed in production, and skill in imparting knowledge to inexperienced crews and maintenance men.

Alco

GE



AMERICAN LOCOMOTIVE • GENERAL ELECTRIC

Copr., 1945, American Locomotive Company and General Electric Company **Reg. U. S. Pat. Off.* 118-110-9600

DoALL Does 8-HOUR JOB in ½ HOUR

The same blanking die that takes 8 hours of tedious drilling and filing to make on the Drill, can be cut by the DoALL in exactly 30 minutes. Not only a 16 to 1 saving in time, but no broken drills, no lost metal.

TRY IT YOURSELF...

If you now use a drill for work of this kind—or a vertical shaper or mill, for that matter—make your own comparative tests and see for yourself how many short cuts DoALL offers in tool room or for regular production work.

If you do not have a DoALL in your plant, one of our factory-trained men will gladly call with a mobile demonstrating unit.

DoALL is today's fastest internal and external method for cutting all metals, alloys, plastics, laminates, wood—blocks a foot thick, bar stock, tubing or stacked sheets.

1. PAINSTAKING CENTER PUNCHING

2. TEDIOUSLY DRILLING ROW OF HOLES

3. HAMMERING OUT THE SLUG

4. FILING OFF THE DRILLMARKS

Write for copy of DoALL ADVANTAGES, the illustrated story of 8 interesting jobs.

DoALL

INDUSTRY'S NEW SET OF TOOLS

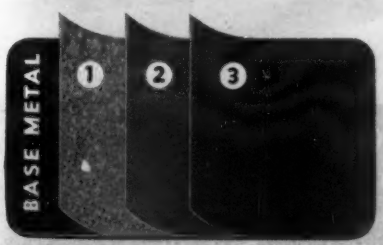
CONTINENTAL MACHINES, INC.
1345 S. Washington Ave. Minneapolis 4, Minn.

Sales & Service Offices: Baltimore, Birmingham, Boston, Chicago, Cincinnati, Cleveland, Denver, Detroit, Erie, Grand Rapids, Hartford, Houston, Indianapolis, Los Angeles, Milwaukee, Minneapolis, New York, Orlando, Philadelphia, Pittsburgh, Providence, Rochester, Rockford, St. Louis, San Francisco, Seattle, Toledo, Tulsa.

"Triple protection" is no empty phrase when you specify ARMCO ZINCGRIP-PAINTGRIP sheet steel for car roofs. This leaf-type drawing shows how the steel is protected three ways:

1. ARMCO ZINCGRIP: *A special zinc coating under—*
2. ARMCO PAINTGRIP: *A smooth, Bonderized finish that insulates zinc from—*
3. *Paint applied in any color.*

ZINCGRIP-PAINTGRIP has many advantages for car roofs. It can be drawn to the most intricate designs—without injuring the special zinc coating. No peeling or flaking, no unprotected seams to invite rust attack.



It Grips Paint

Next, the mill-Bonderized PAINTGRIP finish *holds* paint without costly pre-treatments. Less paint is needed because no primer coats are necessary.

These freight and passenger car roofs last longer and look better because PAINTGRIP retards drying-out of the paint. Maintenance and replacement costs go down and stay down.

You'll want to consider this special-coated sheet steel for car roofs and other applications where sheet metal must be formed and painted immediately. Shall we send you more data? Just address Armco Railroad Sales Co. Inc., 181 Curtis St., Middletown, O.

A Quick Check-List of Advantages

★

COMPLETE ZINC PROTECTION

★

LESS PAINT NEEDED

★

LONGER PAINT LIFE

★

LESS MAINTENANCE

★

LOWER OVERALL COSTS

ARMCO RAILROAD SALES CO. INCORPORATED

Safety... Comfort... Economy...

These three will be essential features of railway passenger equipment to qualify for postwar transportation. A. A. R. Tightlock Couplers go far toward assuring these essentials.

A. A. R. TIGHTLOCK COUPLERS

Eliminate slack in coupler contour.

Eliminate noise caused by coupler slack.

Interlocking feature prevents telescoping and turning over of cars.

Improved anti-creep arrangement, and A. A. R. No. 6 operating mechanism prevents train separation.

Will couple with present standard and M. C. B. type couplers, and when so coupled provides substantial reduction in contour slack.

Wear of coupler head and parts is materially reduced, thus increasing the service life.

They meet all A. A. R. requirements

NATIONAL MALLEABLE AND STEEL CASTINGS CO

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco

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POWERED BY "CATERPILLAR" DIESELS

84% of all 44-ton Diesel-electric locomotives operating on Western Hemisphere class railroads are powered by "Caterpillar" Diesel Engines

In Davenport-Bessler, General Electric and Whitcomb units, the 37 roads listed here (as of Nov. 20, 1944) are employing the dependable and economical power of these sturdy engines.

Amador Central
American Ry. of Puerto Rico
Arcade & Attica
Arkansas Valley
Atchison, Topeka & Santa Fe
Atlantic & East Carolina
Boston & Maine
Chattanooga Traction
Chicago, Burlington & Quincy
Chicago, Milwaukee, St. Paul & Pacific
Chicago & Northwestern
Chicago, Rock Island & Pacific
Chilean State Railways
Denver & Rio Grande Western
Great Northern
Great Western of S.A.
High Point, Thomasville & Denton
Laurenburg & Southern
Lehigh Valley
Maine Central
Mexican Government Railways
Minneapolis & St. Louis
Minneapolis, St. Paul & Sault Ste. Marie
Mississippi Export
Missouri & Illinois Bridge & Belt
New York, New Haven & Hartford
New York, Ontario & Western
Oahu Railway & Land Co.
Ohio & Morenci
Pacific Electric
Richmond Marine Terminal
San Francisco & Napa Valley
St. Louis-San Francisco
St. Paul Union Depot
Southern Pacific
Washington & Old Dominion
Western Maryland

General Electric 44-ton switching locomotive with side doors removed to show installation of two "Caterpillar" Diesel D17000 Engines direct-connected to generators.

"Always rarin' to go"

The high availability of "Caterpillar" Diesel-equipped 44-tonners commends itself to roads with busy yards. No delays for "getting up steam" or taking on coal and water. No engine operating adjustments or hand fitting of parts. In fact, the little and infrequent maintenance or repairs these finely engineered power-plants may require can readily be made with regular shop help. And real fuel economy—plus the ability to burn the same low-cost fuels as used in heavy Diesel locomotives—is still another decisive advantage which should influence railroad operating heads to *WRITE FOR FURTHER INFORMATION.*

CATERPILLAR TRACTOR CO. • PEORIA, ILLINOIS

Caterpillar Diesel Engines

REG. U.S. PAT. OFF.

TRACTORS • MOTOR GRADERS • EARTHMOVING EQUIPMENT

This is not a Circular. The offer of these Bonds is made only by means of the Circular, which should be read prior to any purchase of these Bonds.

$53,835,000

Louisville and Nashville Railroad Company

First and Refunding Mortgage 3⅜% Bonds, Series F

Dated October 1, 1944 — Due April 1, 2003

The issuance and sale of these Bonds are subject to authorization by the Interstate Commerce Commission

In the opinion of counsel, these Bonds will be legal investments for savings banks in California, Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Vermont and Washington.

Price 105.88% and accrued interest

Copies of the Circular are obtainable from only such of the undersigned as may legally offer these Bonds in compliance with the securities laws of the respective States.

HALSEY, STUART & CO. INC.

BEAR, STEARNS & CO. — **GLORE, FORGAN & CO.** — **LADENBURG, THALMANN & CO.**

OTIS & CO. (INCORPORATED) — **PHELPS, FENN & CO.** — **SCHOELLKOPF, HUTTON & POMEROY, INC.**

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BURR & COMPANY, INC. — **H. M. BYLLESBY AND COMPANY** INCORPORATED — **HAYDEN, STONE & CO.**

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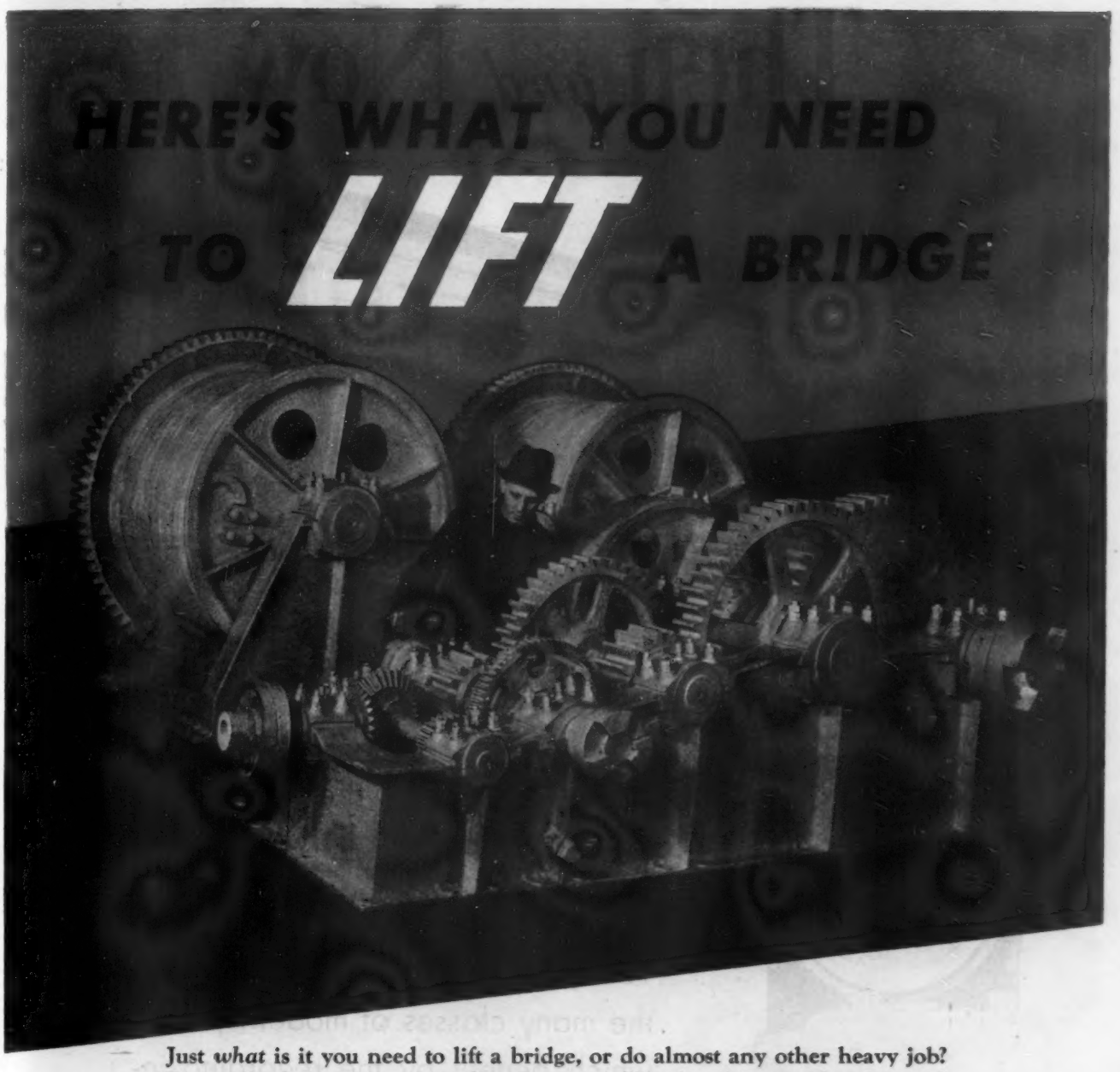
GRAHAM, PARSONS & CO. — **KEAN, TAYLOR & CO.** — **DEMPSEY & COMPANY**

E. M. NEWTON & COMPANY — **SWISS AMERICAN CORPORATION**

January 5, 1945.



Just *what* is it you need to lift a bridge, or do almost any other heavy job? First off, of course, you need equipment—like the drive mechanism and drums for a vertical lift bridge illustrated here, PSF cast, machined and assembled. But, more important than anything else, you need the vital unseen factors of *quality* in the castings themselves—correct and uniform grain structure, sound strength, freedom from defect, and dimensional and compositional accuracy. Those are the big considerations, and they're advantages you'll find in PSF castings all the time, on any job.

W&D 9600

46 YEARS OF STEEL CASTING KNOWLEDGE

Pittsburgh

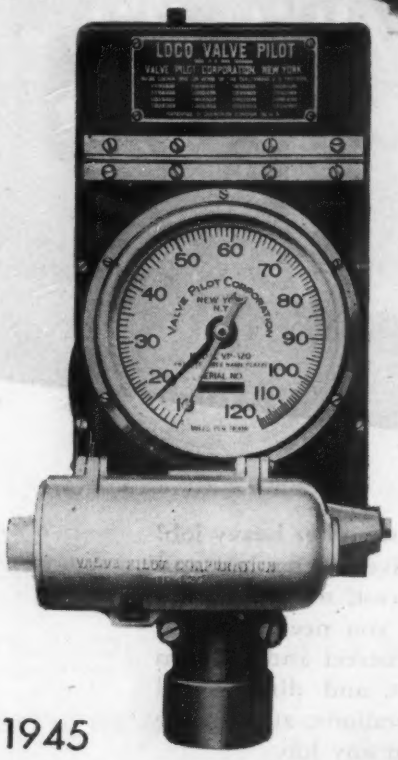
STEEL FOUNDRY CORPORATION

GLASSPORT, PA.

Sales Offices: NEW YORK • PHILADELPHIA • WASHINGTON AND CHICAGO

Then *and* Now

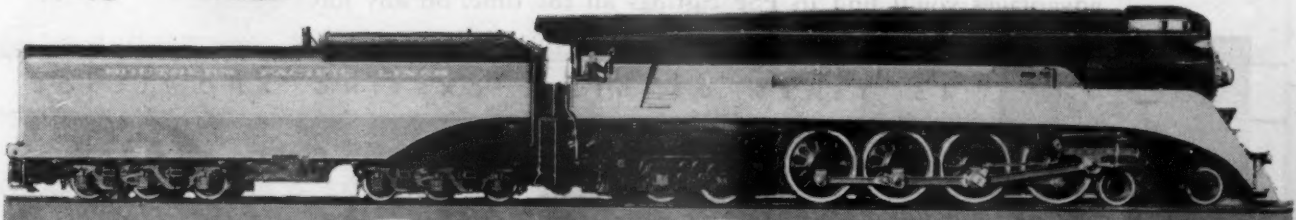
1900



IN the heyday of the "Pay Car," locomotive operation followed the engineman's unaided judgment!

Today the DAYLIGHT is but one of the many classes of modern power which benefit by the recording instrument method — the VALVE PILOT.

1945



VALVE PILOT CORPORATION

230 Park Avenue, New York 17, N. Y.

soften up the SHOCK!

Style A-6-A HOLLAND Volute SNUBBER SPRINGS

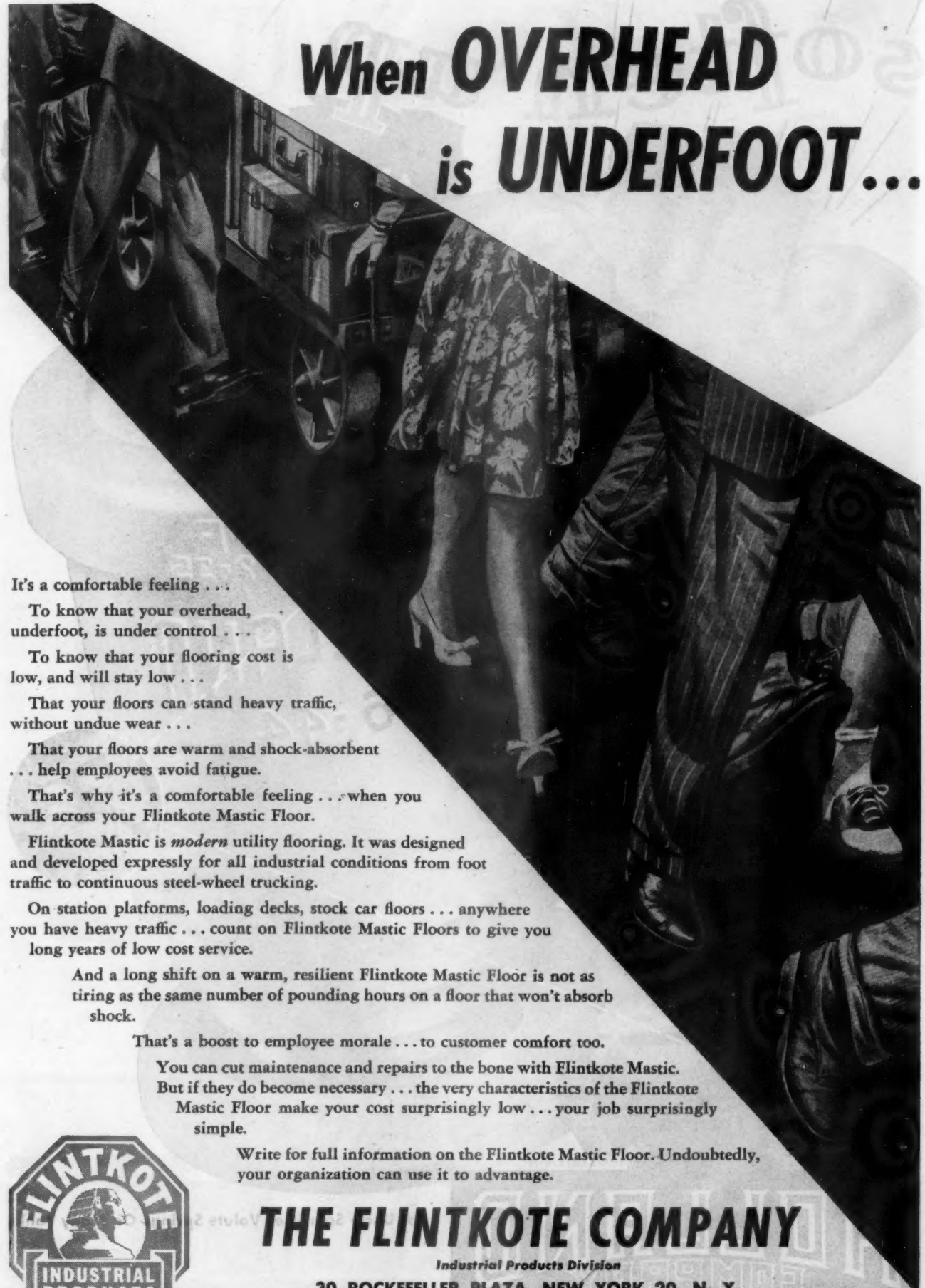
Overburdened Spring Groups are one of the results of war-traffic-increased loads and speeds. The many-time-multiplied spring shocks are being softened on many cars by the use of Holland Volute Snubber Springs.

HOLLAND COMPANY

332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

★ Uncle Sam Uses Volute Springs On Many Tanks

When OVERHEAD is UNDERFOOT...



It's a comfortable feeling . . .

To know that your overhead, underfoot, is under control . . .

To know that your flooring cost is low, and will stay low . . .

That your floors can stand heavy traffic, without undue wear . . .

That your floors are warm and shock-absorbent . . . help employees avoid fatigue.

That's why it's a comfortable feeling . . . when you walk across your Flintkote Mastic Floor.

Flintkote Mastic is *modern* utility flooring. It was designed and developed expressly for all industrial conditions from foot traffic to continuous steel-wheel trucking.

On station platforms, loading decks, stock car floors . . . anywhere you have heavy traffic . . . count on Flintkote Mastic Floors to give you long years of low cost service.

And a long shift on a warm, resilient Flintkote Mastic Floor is not as tiring as the same number of pounding hours on a floor that won't absorb shock.

That's a boost to employee morale . . . to customer comfort too.

You can cut maintenance and repairs to the bone with Flintkote Mastic. But if they do become necessary . . . the very characteristics of the Flintkote Mastic Floor make your cost surprisingly low . . . your job surprisingly simple.

Write for full information on the Flintkote Mastic Floor. Undoubtedly, your organization can use it to advantage.

FLINTKOTE INDUSTRIAL PRODUCTS

THE FLINTKOTE COMPANY

Industrial Products Division

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

ATLANTA • BOSTON • CHICAGO HEIGHTS • DETROIT • LOS ANGELES • NEW ORLEANS • WACO • WASHINGTON • TORONTO • MONTREAL

NOTHING TO SIT ON...

After the war you'll be wooing passengers again instead of shooing them.

We know you plan to lure them with comfort. We know you know foamed latex is the most restful, most durable cushioning for train seats. That's proved by the number of times we've had to say, "Sorry, all *Foamex* today is for war uses."

But how about your waiting rooms? Will those be competitive for comfort?

Plan now to make them so. *Foamex* will make station seats more comfortable, just as it has revolutionized comfort in bus, train, and plane seats.

Foamex is more restful because it cradles people on millions of perfectly resilient, air-breathing cells.

It's cooler, cleaner, because it breathes.

And it wears longer. You never have to restuff *Foamex*-upholstered seats. There's no stuffing in *Foamex*. No springs either. It's all one molded, sag-proof piece of ever-buoyant latex foam.

So put *Foamex* in your postwar comfort plans for cars and coaches, waiting rooms, offices and homes. *"Nothing is so restful to sit on."*

P.S. The ideal covering for *Foamex* seats—*Velon,** Firestone's new wonder fabric. Makes smarter colors practical.

Listen to the Voice of Firestone, Monday evenings over NBC

*TRADEMARK

ANOTHER CONTRIBUTION TO A BETTER WAY OF LIFE by **Firestone**

Use Them TOGETHER

For "On-the-Spot" Communication

Here's a perfect combination for many railroad communication needs—Automatic Electric's Type 10 Portable Telephone, and the Universal Line Pole. Use them together, for communication from anywhere out on the line.

THE PORTABLE TELEPHONE is light in weight, compact—easy to carry. Its luggage-type case is rugged and weatherproof. And the telephone equipment is all "Automatic Electric"—capsule-type transmission units, switching key in handset, circuit with exceptionally low bridged transmission loss.

THE UNIVERSAL LINE POLE is the modern standard of many railroads. Convenient 3-foot sections snap together to make a 12-foot length (or longer, with additional sections). Line connectors make firm, low-resistance connections to crossarm or bracket line wires up to 33 inches apart. Rubber-covered cord, 45 feet long, connects to terminals on telephone (or test set).

Each of these items is perfect for railroad use. Use them together—an unbeatable combination!

AUTOMATIC ELECTRIC

MAKERS OF TELEPHONE, SIGNALING AND COMMUNICATION APPARATUS
ELECTRICAL ENGINEERS, DESIGNERS AND CONSULTANTS
Distributors: AUTOMATIC ELECTRIC SALES CORPORATION,
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Type 10 Portable Telephone
With Generator and Bell—AG-18
With Generator, No Bell—AG-19
With Bell, No Generator—AG-20
Without Bell or Generator—AG-21

Universal Line Pole
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Additional 3-ft. section—S-5933
Heavy Canvas Carrying Bag (extra)—S-2338

Railway Age

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The Week at a Glance

NEW TECHNIQUES: An editorial in this issue surveys some of the results of the Boston & Maine's human and industrial relations course. Because the speakers, on the whole, apparently were motivated more by sincere conviction than by demagogic expediency, it is noted that the divergency of some of their views was over-shadowed by a strong and general feeling that co-operation for the common good of labor, management, stockholders, and customers can be achieved more frequently, through mutual tolerance and patience, than it has been, and that contumacy and contumely are outmoded tools under modern techniques of negotiation.

●

LOADING ESTIMATES: The 13 shippers' boards' estimates of carloadings for this year's first quarter, reported herein, come out only two tenths of one per cent over last year's results for the same period. The I. C. C., however, through its Transport Statistics bureau, which is doing some experimenting in this field of forecasting, comes up with the view that carload loadings will drop off, not only in the first quarter but throughout the first six months. Details are given in the news pages.

●

AUDIT ORDERED: No easy or enviable labor has been undertaken by Uncle Sam's Budget Bureau, which is taking an investigation on its shoulders in response to Senator Wheeler's expression of concern over certain assertions that the government is paying too much freight. How thorough a job the bureau will do is not disclosed, but some idea of what it's in for is seen in the disclosure that the Army's Transportation Corps alone gets 30,000 freight bills every day. This undertaking was instigated, incidentally, right on the eve of the current fever heat over critical manpower shortages.

●

I. T. C. IN THE WEST: Inductive train communication is being tested on the Milwaukee's Kansas City to Milwaukee through freight run, and other tests on the Chicago-Minneapolis line and in the electrified zones in the western mountains are on the program. Technical details of the apparatus and its application to the particular characteristics of the Milwaukee-Kansas City line are developed on page 152.

●

DISINTEGRATING DEVICE: The anti-trust suits through which the New Deal is attacking the railroads, and the speeches which such friends and well-wishers of private enterprise as Biddle, Berge, and Wallace have been making, are moves in a program to complete the regimentation of American industry through court order, says the Transportation Association of America in its annual report, reviewed in our news columns. The anti-trust law in particular is being perverted into a device to break up the transportation industry and establish a socialized, totalitarian control of the fragments, it charges. The remedy is in Congress, which is urged to make it possible for the regulated common carriers to provide service and rates which will leave the shipper no reason to go into the transportation business, rather than to permit the monopoly-bewailers to wreak their vengeance on this industry by emaciating it and forcing it under their complete control.

●

REFORM IN REVERSE: The idea behind section 77 of the Bankruptcy Act, under which bankrupt railroad companies are reorganized under trustees rather than under receivers, was, ostensibly at least, to speed up the painful processes of reorganization and relieve the courts of much of the responsibility for railroad management which they had had to assume in previous periods of financial storm. Its effect, however, as this week's leading editorial demonstrates, has been, instead, to add more delays and more expense to the already laborious and lengthy proceedings. While one cause of such dilatory disposition of these cases is seen in the difficulties which the courts and the I. C. C. experience in getting together on common ground in formulating plans for these reorganizations, further delays, without apparent justification, seem to occur in the subsequent court proceedings. The record on the whole, therefore, is not one of improvement upon the results of the receivership method, but one of retrogression.

●

READY TO REGULATE: The I. C. C. has reminded Congress that it is perfectly willing and able to take on the job of regulating carriers' rate conferences and other machinery for making lawful freight rates. The commission's annual report, containing this advice, is reviewed herein. Having expressed so much concern over the iniquities allegedly perpetrated by these bureaus, the Attorney General and his followers *surely* will now be heard preaching from the housetops their whole-hearted support of this proposal, the effectuation of which at once would meet their professed objection to "unregulated" rate making.

●

NOTED IN BRIEF: J. A. Kurn has resigned as a trustee of the Frisco, leaving F. A. Thompson to carry on alone in that capacity. . . . Assistant President Byrnes has put his foot down on convention-going, and O. D. T. Director Johnson has final say as to what sort of conventions help to win the war. . . . The new Congress was deluged with bills, as usual; the land-grant repealer and the Hobbs reorganization-easer were among them. . . . The I. C.'s President Beven's death is reported on page 151. . . . Another air line has received a big press play on its proposal to cut fares about 6 per cent. . . . Some of the Supreme Court justices handed Georgia's governor several hot potatoes to juggle when he urged them to hear his "conspiracy" complaint against the railroads. . . . Governor Dewey wants New York to cut in on the federal government's preserves, that is, to lend a hand in subsidizing the railroads' competitors and digging the St. Lawrence ditch.

HOBBLES AGAIN?: The Santa Fe could not have met the demands of wartime traffic as it has, its President Gurley points out, if the arbitrary make-work train limit laws of certain western states had been allowed to remain in effect. Unfortunately the operation of these out-moded and short-sighted statutes has been suspended only for the duration, giving one reason to wonder how fully the railroads will be allowed, in an era of labor surplus such as is likely to come with peace, to perform their functions with the efficiency they are qualified to exhibit.

●

FORMULA FOR THE FUTURE: Freedom to produce the utmost service of which the railroads are capable, after the war, through permanent relief from obsolete and backward-looking legislation, like these train limit laws, is one prerequisite to the creation of a political and social atmosphere favorable to the preservation and further perfection of a healthy and aggressive national railway system. Other factors, equally essential to this same end, are developed in detail by President Gurley and surveyed in a feature article this week. They are: (1) repeal of the land-grant rate law; (2) lasting and conclusive relief from the application of the Attorney General's "ritual of retribution" to rate-making processes which the government's own acts have done much to bring into being; and (3) an approach to equality of opportunity among the different competing forms of transportation in exemption from taxation or, better yet, through self-reliance and independence of the public purse.

●

SLOW ORDER ELIMINATOR: What the Santa Fe is doing with the 18 track-grouting machines on its lines is reported in one of this week's feature articles. Since December, 1941, more than 106 miles of track have been stabilized with equipment of this type, and it is paying dividends in eliminating chronic slow orders, saving man-hours, and reducing expenditures of materials. Sand-cement grout, with or without the addition of an asphalt emulsion, has been applied under pressure to fill water pockets and to counteract the unfavorable conditions characteristic of various gumbo and clay soils. Techniques are described, and the "bugs" disclosed in early experiments, and subsequently overcome, are indicated.

●

BETTER TRUCKS: Among the many technical problems which operating, engineering, and mechanical officers have had to overcome in adapting their facilities and practices to the requirements of the high-speed service which the public expects from modern railroads, that of improving the car trucks is not the least important. An article by the Milwaukee's chief mechanical officer, beginning on page 146, tells what that road has been doing to secure the safety, better ride, reduced weight, noise reduction, and friction elimination which were its principal objectives in redesigning trucks for its streamlined trains.

why OKOPRENE protection gives longer life to RAILROAD CABLES

Railroad men have found that Okoprene protected cables resist the moisture, oil, chemical, heat, sunlight, flame and weather conditions that hasten the destruction of rubber-insulated wires with fibrous coverings. They have therefore specified electrical wires clad with Okoprene for every type of railroad service, and found the results good.

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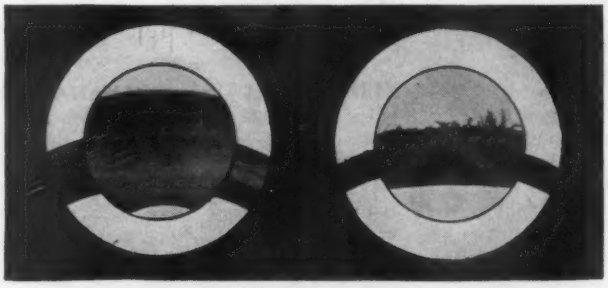
Since 1931, proving ground tests and field experience with millions of feet of wire have been emphasizing the stability and long life of Okoprene coverings under widely varied conditions.

WEATHER RESISTANCE – (*Aerial cables, C.T.C. wire, exposed wiring.*) Okoprene sheaths will not rot or deteriorate when subjected to moisture. The protective covering is flexible at temperatures even lower than *minus* 18°C. (0°F.) and may be handled in the coldest weather.



Relative deterioration after six years exposure: *Left:* Okoprene sheath smooth and unchanged by elements. *Right:* Saturated braid with compound eroded and braid destroyed.

CHEMICAL RESISTANCE – (*Cables buried in cinders or exposed to smoke or chemicals.*) The Okoprene jacket has excellent resistance to most acids, alkalies and other corrosive chemicals.

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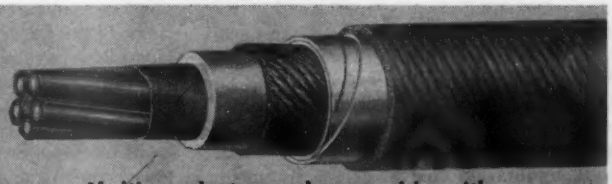


Multi-conductor parkway cable with Okoprene covering on each conductor.

RAILWAY AGE

Why the "Perpetuation" of Railroad Trusteeships?

Few constitutional acts of Congress can ever have more completely failed to accomplish their purposes than the act of March 3, 1933, and especially that part of it amending section 77 of the Bankruptcy Act.

Section 77 contains provisions for the reorganization of bankrupt railroads. On December 31, 1932, just before it was passed, there were 22,545 miles of railroad in bankruptcy. Twelve years later, on December 31, 1944, there were 51,939 miles in *alleged* bankruptcy, although meantime the financial condition of virtually every railroad in the country had greatly improved. In an opinion of the U. S. Supreme Court on April 1, 1935, Justice Sutherland said: (italics are ours)

"The *delay and expense* incident to railroad receiverships and foreclosure sales constitute probably the chief reasons which induced the passage of section 77; and *to promote the perpetuation of either of these evils under this new legislation would be subversive of the spirit in which it was conceived and adopted.* . . . Proceedings of this character involving public and private interests of such magnitude should, as far as practicable, *be given the right of way* both by the court and by the (Interstate Commerce) Commission to the end that they may be speedily determined."

Efficiency FOR VICTORY

There have been within the last half century three periods in which there have occurred extensive railroad bankruptcies. In the depression of the '90's the mileage in receivership reached a maximum on June 30, 1894, of 40,819 miles. This had been reduced in 1899 to 9,853 miles, a decline in five years of 30,966 miles, or more than three-fourths.

On June 30, 1916, another peak of 37,353 miles in receivership was reached. This had been reduced at the end of 1921 to 13,512 miles, a decline in five and one-half years of 23,841 miles, or almost two-thirds.

"Recovery" is claimed by defenders of the New Deal to have occurred before the war. But after passage of section 77, and the substitution by it of trustees for receivers, the mileage of bankrupt railroads increased from 22,545 at the end of 1932 to a maximum of 77,103 miles at the end of 1939. And five years later, at the end of 1944, this, in spite—or because—of section 77, had been reduced only 25,164 miles or, as already stated, to 51,939 miles, a decline of less than one-third.

The mileage in trusteeship under section 77 in 1939 was almost twice as great as the mileage in receivership in either 1894 or 1916; but the mileage taken out of bankruptcy under section 77 within the last five years was substantially smaller than the mileage taken out under the old system of receivership and foreclosure in the five years ending with 1899, and only about the same as under the old system in the five and a half years ending with 1921.

Not only have individual railroads been kept in trusteeship under section 77 much longer and at resulting much greater expense than they were formerly kept in receivership; but reorganizations effected under section 77 have caused much larger and more indefensible losses to security owners, especially stockholders.

Under the system of receivership, how a bankrupt railroad should be financially reorganized and when it should be returned to a management chosen by its stockholders was determined by a federal court or courts. Under section 77 the plan or plans of reorganization proposed by the Interstate Commerce Commission must be passed on by a federal court or courts. When the Commission and courts have got through passing plans of reorganization back and forth, the court having jurisdiction is supposed, as formerly under receivership, to transfer the railroad as promptly as practicable to a management

selected by its stockholders. But instances could be cited in which courts subsequently for long periods have kept and are still keeping railroads in trusteeship without any apparent justification.

On the record, section 77 seems to have been thus far so carried out by the Commission and the courts, or some of the courts, as "to promote perpetuation" of the very "delay and expense" which Justice Sutherland said "would be subversive of the spirit in which (this new legislation) was conceived and adopted."

Qualifications for Dealing with the Public

We have recently printed in our "Communications" columns several letters from railway public relations officers discussing the qualifications for this important work. One writer, impressed with the necessity for intelligent co-operation with newspapers, contends that no one not an experienced newspaper man can successfully direct public relations for a railroad. This writer appears to overlook or minimize the fact that a successful public relations director needs either to possess personally or have at his command not just this one professional skill, but at least a half-dozen more—among them, a practical understanding of railroad operation: a mastery of the technique of advertising; some knowledge of radio and of opinion research; more than a smattering of transportation law and the status of regulation; understanding of sound procedures in labor relations; and something more than superficial grasp of his railroad's economic and legislative problems. The list could be almost indefinitely extended. Besides all this, the public relations officer needs the confidence and respect of his fellow railroad officers, and the ability to elicit this attitude from "outsiders".

No man can go into public relations work possessed with all the skills he will require for the successful performance of his job. Consequently, the primary qualification for success in this work cannot be the mastery of any one professional technique—but, rather, such qualities as alertness, resourcefulness, intelligence, friendliness and integrity which will enable him to acquire on the job the technical proficiency for which no preliminary training is possible.

And, while on the topic of qualifications of those who represent the railroads before the public, the question may well be raised as to those of the officers in charge of legislative representation for the railroads. Is training as a lawyer invariably or usually a prerequisite for such work? This question is not meant to imply that legal training is a disqualification for legislative work, nor that a railroad legislative representative does not at all times need competent legal advice and direction. The skill required for successful dealing with legislative matters has many facets, however, just as has that required for public relations work, and undue emphasis on one of them many conceal the absence of others equally important. It is the man who can most completely evidence a combination of desirable qualities, rather than one who is primarily distinguished for his competence in only a single one of them, who will be most likely to do a successful job in representing the railroads before legislative bodies.

Thanks to the surpassing competence of the departments directly concerned with railroad operation—and to the public relations officers who publicize railroad accomplishments—the railroads now enjoy the best public opinion they have ever experienced, but without having achieved any tangible reward in legislation to give them a more equitable position with respect to their competition. We have seen enough of the upright and intelligent legislative representation of the railroads nationally and in some local jurisdictions to be assured that the industry does not lack competent representation in some quarters—but effective legislative work is a "grass roots" job. How many top railroad managements have contented themselves, locally, with naming some good lawyer to represent them in legislative matters, without requiring of him the additional qualifications needed to yield positive results?

In the long run, no railroad department can expect to be adjudged successful if the results it achieves are poor. The whole legislative set-up ought to be scrutinized critically and objectively, without prejudice or preconceptions. If the railroads, at a time when their services are as widely acclaimed as at present, cannot get legislative treatment which will give them a chance to earn a living, what likelihood is there that they will be accorded such an opportunity when peace removes them from the present friendly spotlight of public attention?

Labor-Management Negotiation Techniques

In discussing the techniques of negotiation from management's viewpoint in the Boston & Maine discussion course on railroad human and industrial relations (*Railway Age*, November 25, 1944, page 804) H. A. Enochs, former vice-president of personnel, Pennsylvania Railroad, emphasized the importance of patience and tolerance on the part of negotiators. "Always keep in mind," he said, "that the problem you are discussing is somebody's brain child and an idea that someone believes to be the right idea, and that he is going to work for and vigorously defend, unless and until it can be shown to him that the idea is without merit."

Obviously, as Mr. Enochs also pointed out, "table pounding and raising the voice are always to be shunned." If wise decisions are to be reached a determined effort must be made to preserve an atmosphere of friendly discussion. Workers, management, stockholders and the public should all be equally concerned in the effort to strengthen the railways and insure their continued prosperity. If the stability of the railroads is sapped by granting inordinate demands of one sort or another to any one element in the combination, all stand to lose; certainly it will handicap the railways in insuring stable employment or the most desirable type of working conditions.

H. W. Fraser, president of the Order of Railway Conductors, in discussing the techniques of negotiation

from labor's standpoint, at another one of the meetings emphasized the fact that it is more necessary than ever before for labor and management to work harmoniously and stand unified in face of the difficult problems which will confront them in the post-war years. Several times in his address he deplored the fact that so many cases are referred to the National Railroad Adjustment Board. Many of these are not properly or thoroughly prepared for presentation to the Board, indicating a perfunctory handling. This practice, he pointed out, was simply passing the buck to someone else, who may have no adequate understanding of the conditions, instead of settling the cases at home.

The group at Boston is to be commended for staging these discussions. They were not love feasts; the speakers stood by their guns in presenting their viewpoints. There was apparent, however, a strong feeling that more is to be gained by intelligent co-operation than by fighting. Indeed, it was a general recognition of this fact that inspired the inauguration of the discussion course. The ten meetings proved so productive that there is a strong likelihood that another series of discussions will be arranged this year, in the expectation that better understanding will result and a greater degree of co-operation in preparing the railroads not only to meet the present emergency more successfully but to be better prepared for post-war competitive conditions.

Practicing Economy on His Steady Gal

Roadbed Stabilization

In the interest of improved, on-time train operation and reduced maintenance costs, every engineering and maintenance officer of the railways—and every operating and executive officer—should be interested in the important developments of the past few years in roadbed stabilization. Unstable roadbed, arising from any one of a number of causes, including faulty construction and unfavorable local topography or soil and water conditions, has long plagued maintenance of way men as a source of slow orders, rough-riding track and inordinate maintenance costs.

For many years, chronically unstable track was accepted as inevitable in certain areas, and something that could be dealt with only by surface treatment, as one might treat a skin ailment by the application of an ointment. But even as skin ointments have proved ineffective where the infection is deep-seated, so most of the early attempts at roadbed stabilization, which usually involved the dumping of carload upon carload of new material on top of sinking material and constant resurfacing of the track, were ineffective.

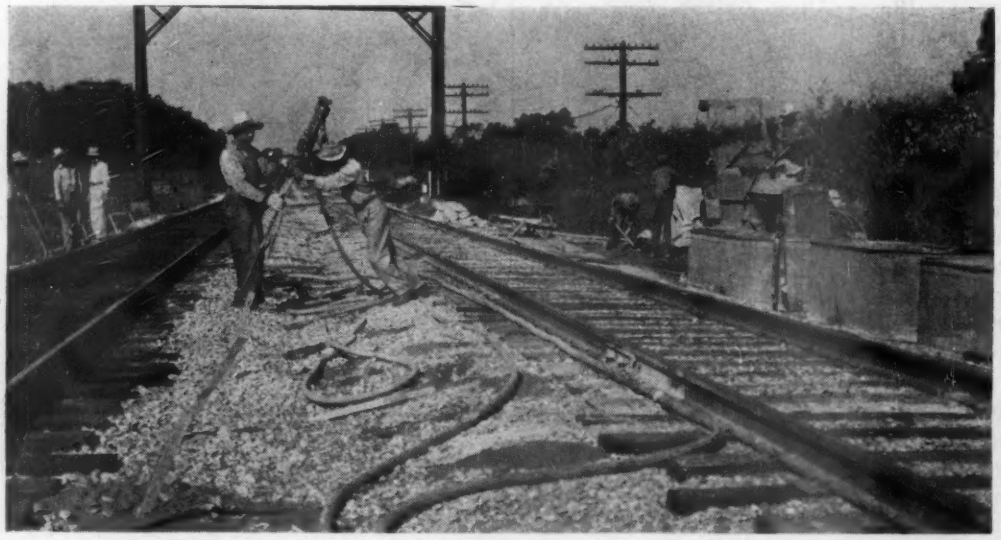
A more radical treatment was demanded to get at the seat of the trouble. This has long been recognized by engineering and maintenance officers, but effective action has been delayed on most roads by two outstanding factors—lack of basic knowledge as to the most effective and economical methods to be employed, and hesitancy on the part of railway managements to visualize the possibilities and to authorize expenditures.

Today, the first of these factors is well on its way to being removed, because several of a variety of methods have demonstrated themselves as effective, including subdrainage, sub-ballast mats, the driving of poles or old ties, and, more recently, the pressure grouting of the roadbed with a sand-cement grout, or a grout mixture incorporating a percentage of asphalt. This much has been definitely established—that practical methods of roadbed stabilization are today a reality. There still remains, on many roads, the job of "selling" this class of work to railway managements by acquainting them with figures on actual results.

This should not be difficult with such figures as those in an article in this issue describing the large-scale roadbed grouting which has been carried out on the Santa Fe during the past three years. The results of this work show chronic slow orders removed completely from those sections of track stabilized; thousands of man-hours of track labor saved per mile stabilized, not to mention the large savings in materials and work train service; and an over-all annual return on the investment ranging from 50 to 100 per cent. Such facts should "talk" to every railway officer interested in improved operation, in reducing maintenance, and in making money for his road. In fact they practically "shout."

Santa Fe Stabilizes 106 Mi. of Roadbed

Describes the method of asphalt-cement roadbed grouting being employed extensively on the A. T. & S. F. to fill water pockets and stabilize the track generally, which was developed as the result of intensive study and experiment during the last three years



In This View of a Main-Line Grouting Operation the Two Men Working Between the Tracks Are Driving a Mud Point

AS the result of nearly three years of research and experiment, the Atchison, Topeka & Santa Fe has developed new methods and equipment for the cement and asphalt-cement grouting of water pockets in the roadbed to restore its stability generally, to improve riding conditions for its high-speed trains, and to reduce the man-hours of maintenance required on the track. Since this work was started in December, 1941, more than 106 miles of tracks have been grouted on the system, of which more than 71 miles were completed in 1944. This work has been done at an average cost of approximately 62 cents per track-foot, and in many locations the savings effected in maintenance expenses have been large enough to pay for the cost of the grouting in one to two years.

In this grouting work, the main purpose has been to fill water pockets in the subgrade with a self-sealing material, which forces out existing water and prevents its future accumulation under the track, and there has been no attempt to establish a strong concrete blanket or slab under the track. In the course of its work, the Santa Fe has conducted hundreds of experiments to develop the best mixtures of materials and the best equipment for accomplishing the end desired. The latest result of its efforts is a method of asphalt-cement grouting, using a very fine "blow" sand in the grout mixture, and specially-designed mud jacks for pumping the grout into the roadbed. The grout is injected into the water pockets at pressures as high as 450 lb. per sq. in. through grout or "mud" points 6 to 12 ft. long, which are driven beneath the track at an angle from points near the ends of the ties.

Early Experiments

From previous experience on the Santa Fe it was known that water pockets could be stabilized by digging them out by hand and back-filling them with "blow" sand, a very fine drifted, or airborne, sand, of which there is a plentiful supply at many points along its lines west of Kansas City, Kan. For a number of years various other methods had been tried to fill water pockets with this sand, but with little success. In these early experiments, unsuccessful attempts were made to blow dry sand into water pockets, and also to force it in with air pressure. Subsequently, a grout-mixture of blow sand, cement and water was tried.

The first trial of grouting the subgrade was made in December, 1941, when two very troublesome water pockets 200 ft. long, near Slaton, Tex., were grouted, using a tank and mortar box, and mixing the grout by hand. The grout was blown under the track by air pressure. The primary purpose of the cement in this initial trial was to serve as a lubricating agent, enabling the grout to penetrate and fill all the voids in the water pockets, and throughout all succeeding work this same objective has been the primary consideration. While the resulting grout, after it sets up in water pockets, does not have much strength in shear or tension, it has some strength in compression.

More important, the cement grout, and the asphalt-cement grout developed later, are apparently self-sealing, and thus continue to serve their purpose in maintaining a water-tight subgrade, despite the impact and the vibration from traffic.

Good results were obtained from the first tests of grouting, but the initial method used had several disadvantages, one of the most serious of which was that when the grout tank became empty, the air would blow the ballast out from between the ties, destroying the tie bed and occasionally raising the track out of surface.

The Stakes Shown in This Picture Mark Locations of Holes Driven by Mud Points But Not Yet Grouted

To overcome this disadvantage, a hydraulic grout pump was designed by Santa Fe engineers and was built in one of the road's shops. When this was found to work satisfactorily, it was decided to build a complete self-propelled grout mixing and pumping machine as a unit, using a crawler tractor and incorporating the hydraulic grout pump as a part.

In an original test near Thatcher, Colo., on May 20, 1942, this machine proved very successful. Since that date it has been used at various localities in Colorado, New Mexico and Texas for grouting water pockets containing ballast ranging in size from fine rock screenings up to standard crushed slag and rock, at an average cost of less than 50 cents per track-foot. This cost includes everything except supervision and depreciation of the equipment, which charges, it is estimated, add about two cents to the cost per track-foot.

After the success of the first complete grouting unit had been established, three machines of similar design were built for use on the Eastern Lines and one for use on the Gulf Lines. In 1943 the Koehring Company, Milwaukee, Wis., became interested in this work and made studies to determine if its highway mud jacks (designed for raising low places in concrete pavement) might be adapted to track grouting. After some consultation and trial, the Koehring mud jack was modified somewhat for track grouting work and the Santa Fe purchased 13 of these machines during 1943 and the first half of 1944. These mud jacks are not self-propelled and are usually hauled by a 35-hp. tractor, which carries a 140-cu. ft. compressor.

In addition to the hydraulic grouting machines, other equipment was also developed for this work. The design and construction of the grout, or mud, points, and the size of the hose for the grout lines, were found to have a considerable influence on the rate of progress of the work, its cost and its effectiveness. Seamless alloy steel tubing of about 13/16-in. inside diameter was found to be ideal for mud points. These points have an integral point, closing the lower end, and a driving head, which is equipped with a nipple to which a hose with a "glad hand" coupling can be quickly applied. At the lower end of each mud point two 5/8-in. holes are drilled on opposite sides, one about one inch above the other, for ejecting the grout into the ballast or subgrade. To avoid delays in driving the mud points, and to save wear and tear on them, it has been found advisable almost always to drive and remove the bullpoints in advance. Both types of points are driven by pneumatic paving breakers or spike drivers with modified socket driving heads.

Asphalt-Cement Grout

While the Santa Fe was developing its track-grouting equipment, experiments with the type of grout or other material to be pumped into the roadbed were also continued. After many experiments with attempts to pump fine sand and water, mixtures of fine-grain top soil and water, mixtures incorporating mine waste, sludge, loams, adobe silts and various combinations of these materials, and cement grout ranging from 1 part of cement and 4 of sand, to 1 part of cement and 40 of sand, it was finally decided that probably the best mixture was a grout of fine sand and cement varying from 1 part of cement to 6 to 13 parts of sand. In addition, mortar or masonry cement, which is roughly 50 per cent Portland cement and 50 per cent very fine inert material (usually limestone), was found to work just as well as other cements and to have the two advantages of slightly less cost and lighter weight. With such grout, the type of sand used was found to have a considerable bearing on the ease of pumping—a very fine sand being preferred.

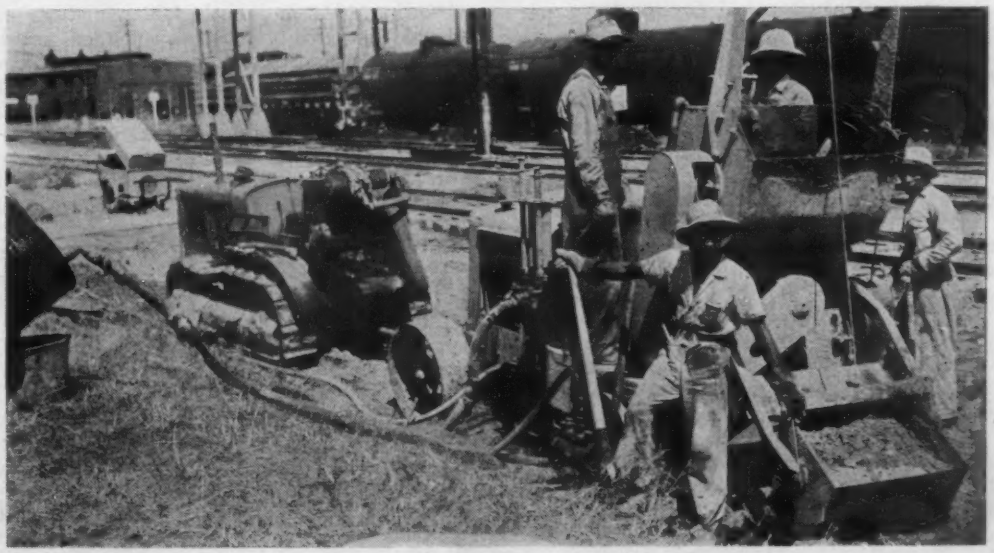
Early in 1944, in co-operation with the Texas Company, much laboratory work was done on the idea of combining asphalt and cement in the grout, primarily to improve its penetrating qualities. The laboratory experiments were favorable and were continued in the field, using a standard emulsified asphalt. This set too slowly, however, and a new quicker-setting emulsion was obtained, consisting of about 60 per cent asphalt and 40 per cent water, with small amounts of chemicals which caused the emulsifying action and controlled the "breaking" or setting time and the amount of foaming and settlement. The final specifications developed for an asphalt-cement grout were somewhat similar to those developed for cement grout, as follows: One part of Portland or mortar cement to 6 to 20 parts of sand; 1/8 to 1/10 gal. of emulsified asphalt for each cubic foot of sand; and approximately 4½ to 8 gal. of water for each cubic foot of dry material. After the development of this specification, all grouting operations were changed to the asphalt-cement formula, because with it the same penetration can be secured with a leaner mixture, and it has even better self-sealing properties.

The Santa Fe now has 18 grouting machines on the system, of which the Eastern Lines have eleven, the Western Lines have four, the Gulf Lines one, and the Coast Lines two. In organizing to do this work, the Western, Gulf and Coast lines have a gang for each machine and follow spot-grouting programs. On the other hand, ten of the machines on the Eastern Lines have been kept together and have been used on a large out-of-face grouting program covering 30 miles of double-track main line.

Spot Grouting

In the spot-grouting work, a machine is assigned to a division and is used to grout the most troublesome soft track or water pockets, which may include side or passing tracks and yard tracks, as well as main line tracks. The methods employed in spot grouting and in out-of-face grouting are very similar, but the gang organizations and methods of servicing differ slightly.

On the Western Lines, a feature of the work is the considerable amount of yard track grouting which has been done. Approximately three miles of yard tracks were grouted in 1944 at Wellington, Kan., which is the largest mileage of yard tracks ever stabilized at one point by grouting methods. At this location the subgrade is a gumbo soil covered by cinders, sand, etc., and



At the Time This View Was Taken the Outfit Shown Was Engaged in Grouting Yard Tracks. Tractor-Compressor Unit Is Shown at the Left; Grouting Jack at the Right

General View of a Main-Line Grouting Organization

the tracks stabilized included engine-house leads and a number of other important service and switching tracks. About ¾-mile of yard tracks were also grouted at both Pampa, Tex., and Belen, N. M. At Belen the subgrade is silt, which occasionally became nearly fluid, with the water table rising to within four feet from the bottoms of the ties. Equipment and gang organization for the yard track work are typical of those used for main-line work on the Western Lines. The gang consists of one foreman, one machine operator, one water-truck driver and 15 to 20 laborers, and is equipped with one Koehring mud jack and its auxiliary equipment. Everything is self-propelled or arranged so that it can be hauled alongside the track as the work progresses.

In the grouting work the sequence of operations is as follows: After the equipment, accessories, sand, water, etc., are assembled, the hose lines are laid out and the men start driving and pulling bullpoints. Several gallons of water are then placed in the mixer of the mud jack, the mixer is charged, and the grout is mixed to proper consistency. The grout is then pumped through the grout lines until the water is cleared out and the grout appears at the discharge coupling. At this point grouting is ready to start—a mud point is inserted in a hole, the grout hose is coupled on, and the point is driven down to the proper depth while pumping. If the point is driven below the bottom of the ballast, into subgrade material which cannot be penetrated freely, it is pulled up to a point where the grout is discharged readily. The pumping continues until the grout escapes at the surface from an adjacent driven hole or from a nearby crack, and it is felt that no more material can be forced into the hole being grouted.

Both sides of each track are usually grouted. Under certain conditions it may be necessary to insert grout at points only 20 in. apart, or in each crib, while under other conditions points need be driven at only about 80-in. intervals, or at every fourth crib. The points are driven a few inches beyond the ends of the ties and at such an angle that the grout discharge takes place approximately below each rail. Bullpoints about five feet long are usually adequate, but mud points with a net length of 10 ft. or more may be needed. This can be determined only by observing the action of the grouting at each particular place. For these reasons mud points of several lengths are kept on hand.

Originally, considerable care was taken to avoid getting grout in the ballast above the subgrade. Such care is no longer taken and there is no objection to grouting up to the bottoms of the ties, except that it is a waste of grout. The grout, after it sets, can be easily picked loose for spotting or tie renewals. It is preferred to grout the track before surfacing out-of-face when grouting is done in conjunction with general improvement work.

Out-of-Face Grouting

On the Eastern Lines 10 machines were used during 1944 in grouting 30 miles of double-track main line out-of-face between Ottawa Junction, Kan., and Emporia Junction. This out-of-face grouting was done in conjunction with a general improvement program in which the present 110-lb. rail is to be relaid with 131-lb. rail and the tracks resurfaced on 1½-in. chats ballast. In this locality, the soil conditions are very bad, including a large amount of gumbo and "joint" clay. As a result both tracks had almost continuous water pockets for the entire 30 miles.

The gang organization for the out-of-face grouting was slightly different from that described previously. The ten machines doing this work were operated by five gangs, with two machines and one tractor each, and these gangs were usually located about one to two miles apart. Each gang normally consisted of one foreman, and one assistant foreman, two machine operators and 26 laborers.

As might be expected, the cost of roadbed grouting fluctuates considerably with the conditions encountered. On the Western Lines the cost has varied from 30 cents to 54 cents a track-foot, with an average cost of about 48 cents. On the Eastern Lines the cost has varied from 51 to 91 cents per track-foot, with an average of about 77 cents.

Results to Date

While most of the locations grouted have not been in service long enough to supply conclusive evidence of the permanence of the benefits derived from this work, the results to date have been very satisfactory. At Thatcher, one of the oldest sections of grouted track, involving 4.2 miles of single-track passenger main line, speeds of 100 m.p.h. are permitted. At this point, in 1941, the year before grouting, it was necessary to keep slow orders in effect on a 1½-mile section 163 days of the year. Two years before grouting, slow orders had been in effect on the same track 262 days of the year. Since grouting was completed, no slow orders have been necessary on this track. Furthermore, a check made of the labor requirements on 3.4 miles of the grouted track showed that the average cost of stabilization in this territory—53 cents per track-foot—was paid back in one year.

At another point north of Snyder, Tex., on a secondary main line in joint clay country, where almost continuous water pockets have been a source of trouble since the line was constructed in 1912, a similar check was made of one mile of stabilized track. This check showed that the cost of stabilizing this mile, which averaged 40 cents per track-foot, will be returned in two years.

Another example of the effect of grouting is that of 2,300 ft. of track near Maxwell, N. M., which formerly required the attention of track forces every three or four days. Grouting at this location was begun in the fall of 1942 and was completed in the spring of 1943. After stabilization, a check revealed that this track was not touched for four months and three days, and then required section work for only part of one day.

All of the roadbed grouting work described has been done under the general direction of G. W. Harris, chief engineer of the Santa Fe system, and under the immediate direction of T. A. Blair, assistant chief engineer of the Santa Fe system. Mr. Blair was largely responsible for initiating the research and development work involved, which was carried out principally by John R. Rushmer, roadway engineer, system, Amarillo, Tex. The supervision of the grouting work on the Eastern, Western, Gulf and Coast lines has been under the general direction of the chief engineers of those lines. [A more detailed description of the development and extent of roadbed grouting on the Santa Fe appeared in the November, 1944, Railway Engineering and Maintenance.]

James M. Kurn

Frank A. Thompson

James M. Kurn Resigns, Thompson Sole Frisco Head

Most recent plan of reorganization proposed by Interstate Commerce Commission awaits approval of Court

FRANK A. THOMPSON, co-trustee of the St. Louis-San Francisco, on December 26, was appointed sole trustee of the company by Federal Judge H. Moore at St. Louis, Mo., effective January 1, 1945, following the resignation, on account of ill-health, of James M. Kurn, co-trustee with Mr. Thompson. Mr. Thompson will be chief executive as well as trustee. The appointment is in accordance with the law which requires two trustees only when one is a railroad officer. H. L. Worman will continue as chief operating officer.

New Chief Former Judge

Mr. Thompson has been associated with the Frisco since 1933. He was born in St. Louis County, Mo., and attended the University of Missouri before being graduated from the University of Michigan in 1904. He was admitted to the Missouri bar the same year and immediately began to practice law in St. Louis. Later he became a member of the law firm of Thompson, Mitchel, Thompson & Young. In 1916-17 he was judge of the Court of Appeals at St. Louis and in 1933 he was appointed special assistant to the attorney general of the United States. In 1933 the United States District Court appointed him counsel for the trustees of the Frisco and on July 30, 1943, he was appointed co-trustee to succeed John G. Lonsdale who died on June 16 of that year.

Mr. Kurn, upon his resignation, completed 59 years of railroad service. He was born in Mt. Clements, Mich., on November 10, 1870, and entered railway service in 1885 as a telegraph operator on the Michigan Central. In June, 1886, he resigned to become an operator and agent of the Atchison, Topeka & Santa Fe, and during the next 28 years was advanced to train dispatcher, to chief dispatcher, to trainmaster, to superintendent and to general superintendent of this road.

Kurn D. T. & I. President

In February, 1914, he resigned as general superintendent of western lines of the Santa Fe at La Junta, Colo., to become president of the Detroit, Toledo & Ironton, with headquarters at Detroit, Mich., which position he held until March, 1918, when he was elected vice-president of the Frisco. During federal control he was general manager of this road, and in March, 1920, was elected president.

On November 1, 1932, he was appointed receiver of the Frisco and subsidiary lines and on October 28, 1933, was made a co-trustee with John G. Lonsdale at the request of the Reconstruction Finance Corporation.

Frisco Reorganization

A report made by representatives of the Reconstruction Finance Corporation in 1933 concluded: "It can be emphatically stated that the Frisco's difficulties are primarily the outgrowth of an unsound financial structure and, secondly, the result of the depression. The physical property is well developed in relation to its requirements, it is in good condition and it is well operated."

Reorganization of the Frisco began prior to receivership when a readjustment plan was considered. Immediately following the appointment of a receiver, the directors declared operative this plan for re-adjustment of the railway capital structure. The plan was rejected by the Interstate Commerce Commission in March, 1937, and it directed that a new or modified plan be submitted for its consideration. Since that time six plans have been submitted by bondholders, the company or the Interstate Commerce Commission. On July 4, 1944, the Commission proposed a revised plan of reorganization which embodies the main provisions of a compromise plan filed by all three bondholders groups with the Commission on February 17, 1944.

The District Court held hearings in November, but to date has not accepted or rejected the plan. Among the suggestions made for improving the position of the Frisco was that it be merged with the Chicago, Rock Island & Pacific or the Missouri-Kansas-Texas.

$247,838,808 Capitalization

Under the I. C. C. plan of July 4, 1944, all property would be retained by the existing company or would be transferred to a new company in the discretion of the reorganization managers, with the approval of the Court. It calls for a total capitalization of $247,838,808, and annual fixed charges of $3,001,773. The plan calls for the distribution of $6,585,822 in cash and new securities based on claims as to principal and interest to January 1, 1944, but leaves the way open for the court to order the distribution of available cash from time to time before the consummation of the plan as well as to determine the effective date of the plan. It makes no provision for interests or equities of general creditors, holders of Frisco preferred and common stock, and holders of claims against the Frisco entitled to priority or preference over claims and general creditors, but not over any one or more of the mortgages.

Milwaukee High-Speed Passenger Trucks

How suitable trucks were developed on the C. M. St. P. & P. to meet the requirements of modern high-speed service

By K. F. NYSTROM

Mechanical Assistant to Chief Operating Officer, Chicago, Milwaukee, St. Paul & Pacific

In 1934, when the Milwaukee built its first streamline Hiawatha passenger train, which was placed in service May 29, 1935, more attention was given to the body construction and its appointments than to the trucks. Therefore, a conventional four-wheel truck was employed which proved to be lacking in riding qualities, particularly at high speeds. The four-wheel equalized truck with helical and elliptical springs, used under this equipment, is illustrated herewith.

As the need for an improved passenger truck was recognized, in the following year, or in 1935, an experimental program was started, but, as no satisfactory solution had been found, the passenger cars built by the Milwaukee in 1936 were also equipped with conventional four-wheel trucks with minor improvements such as the use of more resilient springs.

Early in our experiments we found that personal judgment as to riding qualities could not be depended upon as conclusive, even from an experienced observer. Therefore, recording instruments were used and, in order to observe more closely the action of the truck at various speeds and service conditions, one vestibule step was removed and replaced with an observation booth from which also slow motion pictures were taken. Standard coaches were used in all instances and the final tests were made on both the main line and branch lines under customary operating conditions. By conducting these tests under such conditions we were able to duplicate closely a given test, particularly as we had a traveling engineer or a representative of the test department in the locomotive cab to cooperate with the locomotive engineman as to desired speeds. While the tests were being conducted the test coach was not made available to the public, as a number of instruments were used and it was necessary for the test crew to keep various records including recording of mile posts, location, speeds, etc.

When we felt the truck design was the best that could be produced at the time, the test coach was put in passenger service between Chicago and Minneapolis on the regular high-speed Hiawatha trains.

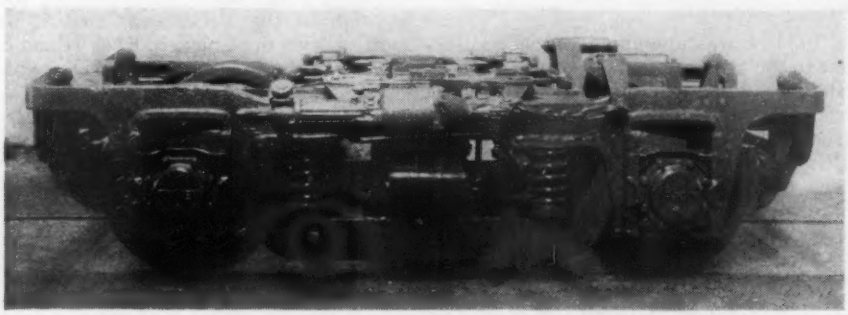
Four- vs. Six-Wheel Trucks

At that time there were strongly divided opinions throughout the country as to a choice between four-wheel and six-wheel trucks. We had selected the four-wheel truck because of the saving in weight; others used six-wheel trucks. To obtain some first-hand information, we made several test runs with a coach equipped with conventional six-wheel trucks. After this test was completed, the center pairs of wheels were removed from the test trucks and that portion of the load that had been carried by the two pairs of equalizers to the center pair of wheels was transferred to the outer pairs of wheels by the use of a special equalizer 11 ft. long, extending between the outer wheels. With the exception of applying larger axles, no other changes were made. Tests were duplicated with this four-wheel truck, but no difference in riding qualities could be observed when compared with the six-wheel test truck. These tests also demonstrated that an 11-ft. wheelbase four-wheel truck rode no better than an 8-ft. four-wheel truck already in service and previously tested. There was a preference for the four-wheel arrangement as its noise level was slightly reduced.

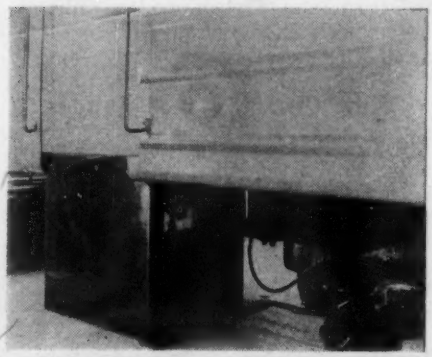
At this point it may be well to mention the great difficulty one person or a single railroad has in coming to logical and correct conclusions in tests or research of this kind as, at best, due to other pressing duties, only intermittent time and attention can be spared. Time is lacking to analyze test results carefully and premature and incorrect conclusions may be reached. As an example, in 1915, while with the Grand Trunk in Montreal, I developed a clasp-brake truck which was later extensively used. I strapped myself to a vestibule coach step for the purpose of observing the action of this truck and noticed that considerable lateral motion took place in relation to the journal boxes and allied parts. I came to the conclusion that a minimum of ¾ in. lateral clearance should be provided in a journal box, or an equivalent in roller-bearing boxes, and proceeded to design a dual roller-bearing box or housing providing for lateral clearances and self-aligning features.

While making a trip to Europe, mainly to get some new ideas, I discovered, to my disappointment, that the Southern Railway of England had in successful service a four-wheel passenger truck wherein every effort was made to avoid lateral clearance. Although the dual roller-bearing box is still in successful service, later roller-bearing applications have proven that lateral clearance is not essential as far as roller bearing applications are concerned.

With this explanation, it will be understood that any conclusion arrived at in this paper should not be considered as final. The only thing we can claim is that we have definitely improved the vertical riding qualities of passenger-car trucks, as actual records will show. These charts were taken on a three-way ride recorder which shows vertical,

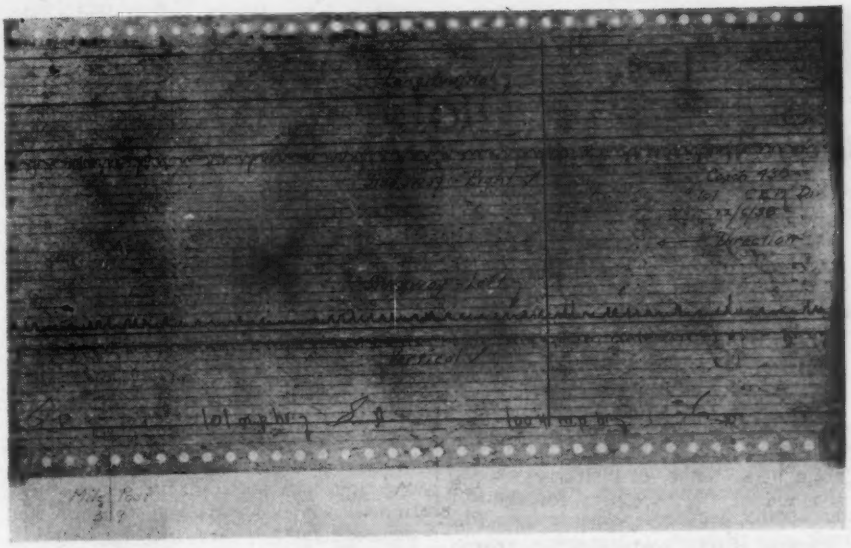


Four-Wheel Equalized Truck Used Under Hiawatha Cars in 1934

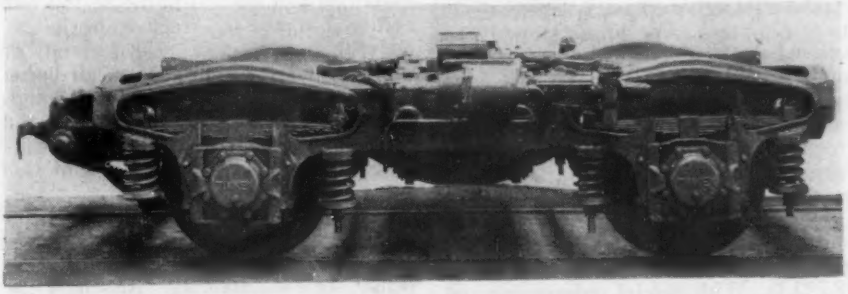


Observation Booth Installed in Place of the Vestibule Steps in the Test Car

This article is an abstract of a paper presented at the railroad session of the A. S. M. E. annual meeting, Railroad Division in New York. Mr. Nystrom's title has recently been changed to chief mechanical officer.



Three-Way Ride Recorder Chart of a Car Equipped with Four-Wheel Coil-Spring Trucks



A Truck, Similar to European Types, Tested in 1936

1938 Truck Equipped with Equalizers and No Springs Over the Journal Boxes

longitudinal and lateral acceleration; the bottom curve represents vertical acceleration. It is calibrated so that each .1 in. on the chart is .1 gravity with .02 initial tension. We are not satisfied with our accomplishments as we know there is room for further improvement.

A large number of tests were made with various spring combinations and in 1936 a truck was designed somewhat similar to the European type. The bolster was supported solidly on a swing-hanger axis without springs. The swing hangers themselves were pin-connected to a spring-supported auxiliary bolster. The major portion of the springing of the truck was concentrated around the journal box. This type of construction later came to be known as a triple-bolster truck. The spring deflection had to be held so low under the swing hangers to maintain car body stability that it was abandoned as a high-speed truck, although this truck is still in service under a suburban car.

When our own initiative failed, as far as adopting European truck practice was concerned, we obtained drawings and duplicated a truck generally used in Europe, known as the Gorlitz truck, which differed from the truck just referred to in that the triple bolster feature was eliminated and a single bolster employed, supported by semi-elliptic springs suspended by hangers from two wheel pieces. Extensive tests were made with this truck but it did not possess sufficient merit to warrant its adoption for high-speed service; however, it is at the present time operating under a coach in our suburban service.

We continued our experiments, working on the premise that a truck having the springs applied over or immediately at the journal box would be more desirable from a cost and weight standpoint. We therefore made extensive tests with a non-equalized truck using a single nest of coil springs over the journal box. This truck was designed so that if the non-equalized feature was unsatisfactory an equalizer could be applied. At this time in our test program, several novel features were introduced. First, the conventional elliptic bolster springs were replaced with large diameter coil springs, vertical shock absorbers were introduced and levellizing bars employed. This experimental truck possessed many desirable features but at speeds over 90 m.p.h. it produced considerable vertical oscillation and therefore was unsatisfactory.

Principal Objectives Sought

The same truck, with the elimination of the helical springs over the journal boxes and the introduction of an equalizer with conventional equalizing springs, was employed under passenger cars built at Milwaukee shops in 1938. It has proved satisfactory with the exception that the conventional wear of roller-bearing boxes, equalizers, spring hangers, etc., still prevails.

In 1939, an inboard truck was developed, equipped with a rotor brake. The generator for air-conditioning and train lighting was suspended from the truck frame and driven by a pneumatic rubber tire held against the tread of the wheel. While this truck was desirable from a weight standpoint and had good lateral stability, due to the increased spread of the bolster springs, it also had some weaknesses. The brake, at that time, was not sufficiently developed to justify its application; the roller-bearing arrangement was cumbersome and inaccessible, and most of the parts were not interchangeable with existing trucks. The generator drive, though interesting, was not very successful.

New coaches built in the year 1942 were equipped with trucks in which the conventional pedestals were eliminated and cast steel equalizers employed. The ends of the equalizers are formed to receive the roller-bearing boxes and the equalizer movement is spaced and controlled by rubber-cushioned guide members. This design eliminated all friction surfaces subject to wear, with the exception of the swing hangers.

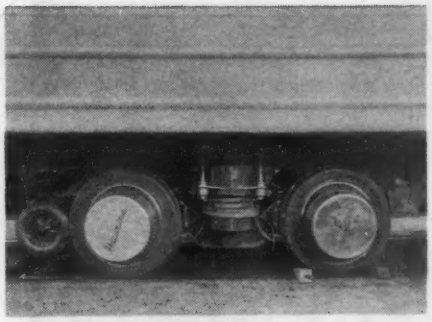
The foregoing is a brief outline of our search for an improved passenger truck design. Rather than go into a detailed description of each of the various trucks mentioned, the following is an outline of what we have endeavored to attain: (a) Safety, (b) improved riding qualities, (c) reduced weight, (d) lower noise level, and (e) elimination of friction surfaces.

Safety.—In our developments and tests we have always set safety up as a first consideration and carefully observed the action of the trucks to detect any unusual behavior which would involve safety. We believe the truck developed for the 1942 cars is safer and more reliable than any truck we have heretofore produced because the equalizer also forms the pedestals and in a derailment the truck parts seem to hold together to a greater extent than in a conventional truck, helping to keep the car, with the aid of the center plate locking pin, on the right-of-way.

Improved Riding Qualities.—At the outset we endeavored to maintain the elliptical springs and improve the riding by increasing their deflection. As the elliptical spring has a variable frictional resistance, depending upon the condition of the friction surfaces, and as this type of spring, under weather conditions we have to contend with, will often freeze into a solid block, we experimented with helical bolster springs. We finally adopted one nest of helical springs at each end of the truck bolster, with a large outside diameter, in place of the elliptical springs. This new helical spring had a free height of 22½ in. and a solid height of 10⅛ in.

We also stubbornly insisted on absorbing the initial blows from the wheels by means of springs above or in the immediate vicinity of the journal box as that seemed to be the most logical and economical place for them. After making many futile attempts with helical, semi-elliptical and volute springs and rubber cushions, we had to fall back on an equalized truck and locate helical springs at a distance from the journal. In experimenting with a large number of springs at various locations and with varied deflections, it appears that there is not much wrong with the location of the springs in a conventional passenger truck if physical conditions permit applying helical springs of suitable characteristics.

Helical springs used as standard for freight cars have an oscillating frequency of 216 cycles per minute and pass through their first critical cycle at a speed of about 45 m.p.h. for fully-loaded cars. In the latest 1942 Milwaukee-built passenger cars, the springs have an oscillating frequency of 88 and 59 cycles per minute for the equalizer and bolster springs, respectively. The truck goes through its last critical cycle, that we have been able to observe, at 26 m.p.h., which is far below the operating speed. We have been unable to discover any additional critical cycle above 26 m.p.h., although we have reached speeds up to 126 m.p.h. We do not know if we selected the best combination of springs but we do know that so far we have improved the riding in almost a direct ratio to the lowering of the oscillating frequencies of the springs. With soft springs, shock absorbers and levellizing bars are necessities.



Inboard Truck with Rotor Brake Built in 1939

Reduced Weight.—The weights of four-wheel experimental trucks, without generators, varied from 12,870 lb. to 18,723 lb. With careful redesigning and the use of high-tensile steel and the liberal use of aluminum, we estimate that trucks can be built to weigh approximately 13,000 lb. or 26,000 lb. per car set.

Lower Noise Level.—We have aimed to reduce the noise level inside the car and anyone who has tried to discover the source of noise will appreciate that this is a difficult problem. Assuming that most of the noise originates from the truck, we have probably taken some unusual precautions, and in so doing have obtained unusual and unexpected results. One of our first attempts, which we considered one of the vulnerable connections for transmitting noise from the truck to the car body, was the center plates. We, therefore, laid a 1-in. thick rubber cushion, bonded to a 3/16-in. steel plate, in the truck bolster center plate; in addition, the periphery of the center plates was insulated with ⅜-in. rubber which was bonded to sectional steel plates.

This arrangement was applied for test purposes in the year 1938 to a dormitory car in Chicago-to-Seattle service, and one of our engineers, at the time of the application, wrote his initials and the date in yellow chalk on the face of the steel plate. After this car had been in service 19 months, the engineer's initials were still legible, which proved that instead of the usual rotational movement between the steel surfaces, the 1-in. thick rubber had sufficient rotating flexibility to take ordinary curves. The car in question had been in the above mentioned service operating through the mountains where there are many 10-deg. curves. By freely employing rubber insulation between truck parts, metallic contact creating noise has been reduced. Continuing our search, we discovered that, although we had to the best of our ability insulated the truck from the car body, there is a fertile field for study of sources and transmission of air-borne noises to the inside of the car through tubular vertical end door posts in the frame of the body and the vestibule itself, which is outside the scope of this paper.

Elimination of Friction Surfaces.—Friction creates wear and consumes power and both add to the expense of maintaining passenger-car trucks; its elimination means increased life and less adjustment of parts. By introducing the rubber between the truck and body center plate, as previously mentioned, all wear on those members was eliminated and we know that the life of the rubber is more than six years, having had some in service for that length of time. We have, by means of rubber-mounted guide members, eliminated the customary wear in bolsters, boxes and pedestals.

The swing hanger and swing-hanger pins are subject to severe wear and from experiments now being carried on, it appears that we can dispense with the swing hangers entirely and allow the large bolster spring to take care of the lateral motion between truck bolster and truck frame. At this time it seems wear of truck parts can be confined to wheels, roller bearings and brake parts. The life of the other parts would depend on the fatigue or durability of the materials employed.

In conclusion, acknowledgment is given to the General Steel Castings Corporation who have cooperated with us and have designed and furnished all cast steel parts used in several truck designs. Their engineers have also been of valuable assistance to us and have participated as observers in most of the road tests. The engineers of the Railway Steel Spring Division of the American Locomotive Company, the Monroe Auto Equipment Company and the United States Rubber Company have also given us valuable assistance.

Truck with Friction Contacts Eliminated Which Was Installed on Milwaukee Coaches Built in 1942

The 58th Annual Report of the I. C. C.

Makes 14 legislative recommendations, most of them repeaters carried over from last year—Advises that adequate rate-bureau regulation is preferable to antitrust actions

WASHINGTON, D. C.

FOURTEEN legislative recommendations, including a proposed Interstate Commerce Act amendment which would provide for "adequate regulation" and thus give legal sanction to the activities of common carrier or forwarder rate bureaus, are made by the Interstate Commerce Commission in its fifty-eighth annual report. The report, which went to Congress on January 9, is in the usual form, being a 106-page document reviewing commission activities during the period from November 1, 1943, to October 31, 1944.

Legislative Recommendations

The other legislative recommendations are mainly repeaters from last year's report, including the request for extension to carrier associations of the commission's authority to inspect records; the endorsement of proposed legislation to repeal remaining provisions of the land-grant-rate law; and the request that sections 20 and 20a be amended "so as to make them applicable to non-carrier subsidiaries of railroad carriers, at least with respect to their accounting and issuance of securities," and that "restrictions be imposed on the expenditure of carrier funds, the incurring of obligations, or the acquiring of property by a carrier or its subsidiaries, except for the operation or legitimate improvement or development of its property."

Other repeaters are the call for complete occupancy by Congress of the legislative field respecting standard time, the suggested rewriting of the Transportation of Explosives Act; the recommended amendment to section 411 (c) to permit a director, officer, employee, or agent of a common carrier to have an interest in a freight forwarder upon authorization by the commission after "due showing that neither public nor private interests will be adversely affected thereby"; the proposal to amend section 5 (2) (b) to eliminate the requirement that a public hearing shall be held in all merger and acquisition cases "where carriers by railroad are involved"; and the call for amendments to sections 1(22), 5(13), and 20a(1) "so as to make these and related paragraphs inapplicable to street, suburban, and interurban electric railways except those which are operated as parts of general steam railroad systems of transportation or are engaged in the general transportation of freight and interchange standard steam railroad freight equipment with steam railroads for transportation in interstate or foreign commerce to and from points on their lines."

As was the case last year, the latter recommendation also calls for section 1(22) and 5(2)(a) amendments which would remove from the commission's jurisdiction the acquisition or operation [as well as the construction or abandonment as now provided] of "spur, industrial, team, switching, or side tracks and of the excepted electric railways." In calling for enactment of the former S.1473, which died with the adjournment of the seventy-eighth Congress last month, the commission renewed its previous requests for authority to prescribe rules for the extension of credit by express companies and for various other amendments to Interstate Commerce Act provisions, including those relating to the service of notice in commission proceedings and to the commission's authority with respect to examining accounts of companies furnishing railroads with cars or protective services to perishable freight against heat or cold.

One Proposal Already Law

The seventy-eighth Congress in the latter days of its final session last month acted upon the next recommendation, extending the Second War Powers Act with its provisions giving the commission certain emergency powers with respect to motor carriers and water carriers. The remaining three recommendations suggest a section 411 amendment "to provide for the regulation of consolidations and leasing of freight forwarders"; call for the addition of a new section to each of parts II, III, and IV, "which would specify the period within which actions at law by common carriers by motor vehicle, common carriers by water, and freight forwarders for recovery of their charges or any part thereof shall be brought, similar in effect to the provisions of section 16(3)"; and propose that section 222 be amended to provide "a remedy by forfeiture for failure of motor carriers, brokers, etc., to keep records in accordance with regulations prescribed under part II . . . or failure to file reports prescribed thereunder."

Comment pertinent to the commission's recommendation that carrier rate bureaus be given legal sanction is included in the report's discussion of rate bureau operations under regulations prescribed by the commission in accordance with Certificate No. 44 issued on March 20, 1943, by the chairman of the War Production Board. In the course of such discussion, the commission mentioned the pending antitrust suit against the railroads and went on to express its view that "there is danger that undue breadth in interpreting and applying the Sherman Act would interfere with carrying out the stated [National Transportation] policy against 'unfair or destructive competitive practices.'"

Until about five years ago, the commission said, "the view was rather generally held that for all wrongs for which the parties are afforded a remedy by terms of the Interstate Commerce Act, to that extent the Interstate Commerce Act supersedes the antitrust laws." Reference had already been made to the April 6, 1944, acquittal by a jury of the motor rate bureaus and motor carriers indicted and tried at Denver, Colo., for alleged conspiracy to violate the antitrust laws. The outcome of that trial, as the commission put it, "suggests doubt as to the practical value of the Sherman Act in preventing reprehensible practices through joint action by carriers and their organizations."

Thus, "it appears that a more effective administrative remedy could be devised by an amendment to the Interstate Commerce Act."

While neither of the rate-bureau bills introduced in the last Congress by Senator Wheeler of Montana and Representative Bulwinkle of North Carolina, Democrats, dealt "adequately with the problem," the commission was nevertheless "entirely in sympathy with their broad objective."

Alert to Safety Needs

Railroad accidents also come in for considerable attention in the report, where the commission discusses at some length the situation with respect to installations of additional safety devices. First, however, it notes that passenger casualties, both fatal and non-fatal, have averaged fewer per billion passenger-miles in the years since 1940 than they did in that year. Also, that the accident situation in 1944's first half was better than in the comparable 1943 period. However, "it appears that for each class of person the fatalities were much greater in World War I than in World War II, the total for all classes being 10,087 in 1917 and 9,286 in 1918, compared with 5,337 in 1942 and 5,051 in 1943."

Continuing, the report recalls the "notable progress" made in the two decades

prior to the war, including the 1932 and 1935 records when but one passenger was reported as killed in a train accident in each of those two years. In the 10 years ended with 1940, "the average annual number of employee fatalities in railway accidents of all kinds was 601, compared with the 4,534 killed in 1907." That the commission has remained mindful of its "definite responsibility" for the administration of provisions of law, "which are expressly designed to promote safety," is indicated when it recalls its numerous orders requiring extensive installations of automatic train-stop and train-control devices on railroads. Mentioned also are "numerous orders which have required extensive improvements in installations of signal systems, interlocking, and other similar systems and appliances"; and actions prescribing signaling standards.

It is explained that for several years prior to the war, the light traffic and unfavorable financial situation of the railroads had the effect generally of confining safety expenditures "to maintenance of existing installations and bringing them into conformity with currently required standards." And since Pearl Harbor, railroad facilities have been so "overburdened" that attention has been directed primarily "to the provision of transportation facilities which were needed in furtherance of the war effort." Because of restrictions on materials and the shortages of skilled employees, many commission orders requiring new installations and modifications "could not be carried out." The report gives assurances that when the wartime restrictions are removed "such further action can be taken as may be found to be appropriate to provide greater safety in railroad operation."

The commission is aware that "the development of various forms of train communication systems is receiving increasing attention," but it said that "thus far, the use of these systems has been proposed primarily for improving railroad operation." The safety aspects "are being studied, but it has not yet been determined to what extent such systems can be utilized in connection with existing systems to increase safety."

Remarkable Performance

Meanwhile the report had got under way as did its immediate predecessors —with the commission's general review of "Transportation Under War Conditions." There it was noted that the war has continued to exercise "a dominating influence on the transportation situation," and that credit for the "rather remarkable performance" of the country's transportation system must be shared by carriers, shippers, state and local governments, and various federal government agencies. That co-operation among these groups "was continued in an equal or greater degree is more or less implicit in the further successful handling of the war transport burden of the past year," the commission said.

It recognized that, in terms of equipment, both the railroads and the water carriers "were slightly better off by the end of the calendar year 1943," and that "there was a notable increase in pipeline facilities long before the end of the past fiscal year." On the other hand, "all indications point to the conclusion that the situation with regard to motor transport facilities has not improved and probably has worsened." After giving detailed figures on the slight improvement in the railroad equipment situation, the commission proceeded to indicate how the much greater improvement in railway performance really accounted for the ability of the railroads to carry on. In 1944, "all of the most common measurements of performance, except freight-car load, rose from two to as high as 18 per cent over the corresponding months of 1943," the report said.

After like comment on the situation with respect to motor carriers, pipe lines, and water carriers, the commission came to its usual review of the "Traffic and Earnings of Transportation Agencies." These data showed that all carriers subject to commission jurisdiction reported for the fiscal year ended June 30, 1944, gross revenues of $12,542,870,000. The railroads accounted for $9,584,714,000 of the total. Traffic figures are given for the calendar years 1943 and 1942. In the former the railroads produced 734,715 million ton-miles, or 71.97 per cent of the total (1,020,875 million) ton-miles reported by all carriers. The railroad proportion of the 1942 total was 70.23 per cent. The railroad proportion of total passenger-miles was up spectacularly, from 19.7 per cent in 1942 to 33.13 per cent in 1943.

Employee and Investor "Shares"

"The large volume of traffic," the commission said, "has meant a full utilization of railroad plant and equipment, and as a consequence it has been possible to absorb increases in wage rates and material prices, pay high taxes, and to have left substantial net earnings." The commission's "condensed income account," which views railroad employees and investors as jointly producing an income to be shared by them, sets up on that basis the results for the 12 months ended June 30, 1944.

From the revenue and other income of $9,553,000,000, there are deducted $2,770,000,000 to cover the cost of materials, depreciation, and other expenses except wages, and $1,851,000,000 for taxes, including income and profits taxes. The remaining $4,932,000,000 is called the amount available "for employees and investors." Wages and salaries chargeable to operating expenses took $3,525,000,000 or 71.5 per cent, leaving $1,407,000,000 or 28.5 per cent as an "investors' share," i.e., the total available for fixed charges, dividends, and other corporate purposes. Moreover, as the commission pointed out, the tax figure includes payroll taxes of $228,726,000, "which logically are an addition to wages." The employees improved their relative position in 1944; in the calendar year 1943 their proportion of the "remainder available for employees and investors" was 68.1 per cent, while in 1942 it was 62.4 per cent.

In commenting on income-account figures, the commission conceded that the net after all taxes and fixed charges "is what is finally left for the corporation to use for dividends, reserves, or surplus." At the same time, it said that the net income before deduction of income and profits taxes "deserves attention as indicating the earning power of a railroad with the existing rates, fares, expenses, and traffic volume." Further discussion of the net income figures called attention to the fact that they do not reflect "over-maintenance or under-maintenance."

Deferred Maintenance

The commission was unable to indicate the extent to which wear and tear caused by heavy traffic since 1941 has not been made good by repairs and replacement. The matter, it said, is "under investigation." Later on, however, the report referred to recent Bureau of Valuation studies which estimate the present accumulation of deferred maintenance "to be approximately $300,000,000, including provision for inadequacy and obsolescence."

In the same connection, the commission thought it "important to note" that the operating expenses "have been increased by extra amortization accruals which provide funds for the replacement of much equipment (or reduction of debt)." In another place the report pointed out that these amortization charges are made under that provision of the Internal Revenue Code which permits the writing off of "emergency facilities" over a period of five years. Here also, the commission emphasized the fact that such amortization charges are in lieu of normal depreciation charges; and that the facilities involved will be eligible for no depreciation deductions if they survive the five-year period during which they are completely written off under the amortization arrangements.

"As of June 30, 1944," the report said in the foregoing connection, "railroad facilities costing approximately $900,000,000 had been duly certified as emergency facilities . . . of which amount about 90 per cent was for equipment. For the first six months of 1944, the charges to operating expenses for amortization of the cost of these facilities were at the annual rate of $180,000,000 or larger by $149,220,000 than the normally applicable depreciation charges which are estimated to be approximately $30,780,000.

"It may be expected that the cost of the preponderance of these facilities will have been fully amortized by the close of 1947. Unquestionably, most of the property, and particularly the equipment, will be retained in service for the remainder of its normal life expectancy, long be-

yond the five-year amortization period. Since, in lieu of normal depreciation charges of $30,780,000 per annum over its full lifetime period, the cost of the property will have been charged to operating expenses by amortization over the shorter five-year period, further charges to operating expenses, beyond that period, for depreciation that otherwise would have been applicable, will not be permissible under our accounting regulations."

In a section devoted to "Government Operation of Carriers," the report told about the strike threats which resulted in the brief period of War Department operation of the railroads early last year. Also reviewed is the wage controversy which resulted in President Roosevelt's August 11, 1944, order taking over some 100 motor truck lines in the Middle West, many of which remain under Office of Defense Transportation operation. Also, it was noted that the Toledo, Peoria & Western remains under O. D. T. control and operation.

After next commenting on a table showing how the funded debt and fixed interest charges of the railroads are being reduced, the commission came to an appraisal of results under its May 8, 1944, report in Ex Parte No. 158, requiring (with provisions for certain exceptions) competitive bidding in connection with sales of railroad securities. Only a couple of applications for exemption have been received under the regulations which were issued June 1, 1944; and the results of the competitive bidding requirements "appear to have been satisfactory."

Water Carrier Problems

In its discussion of problems arising in connection with the regulation of water carriers, the commission told of the general study of this matter which it began last year. It pointed out that "a very substantial proportion" of for-hire transportation by water is not yet subject to federal regulation except in respect of safety. As one phase of the study, the commission added, "we are endeavoring to determine the effects, find that removal or modification of the present exemptions on the functioning of the industry as a whole and on the national transportation system. If we find that removal of modification of the statutory exemptions, or any of them, is necessary in the public interest, appropriate recommendations will be made to the Congress."

The water carriers subject to commission jurisdiction, the report continued, "face difficult problems in rehabilitation of suspended operations and in effecting other adjustments in the early post-war years." The commission has noted "considerable concern" on the part of the water carriers, and it desires to assist them "so far as may be appropriate and as our duties permit." It foresees that difficult problems of the post-war period will include those resulting from "the use by others of war-

(*Continued on page 156*)

I. C.'s President Beven Dies

Ends 46 years of service in which he rose from messenger at the age of 12 years to the presidency at 51

JOHN L. BEVEN, president of the Illinois Central since 1938, died unexpectedly on January 3 on his office car at Clinton, Ill., of coronary thrombosis. He would have been 58 years old on February 17.

Mr. Beven appeared to be in good health and had visited the company's offices and yards at Springfield earlier in the day. After dinner he felt ill and had his secretary arrange for an overnight visit for him at the Clinton Hospital. A short time later he was found dead in bed in his stateroom.

Mr. Beven was born at McComb, Miss., in a house that was owned by the Illinois Central. It was rented by his father, William Beven, who was an Illinois Central locomotive engineer, running between McComb and New Orleans, and who worked for the Illinois Central for fifty-two years.

"Jack" Beven started to work for the Illinois Central at the age of 12 years as a messenger in the local freight office at New Orleans, La. He held various office positions until 1912, when he was appointed chief clerk to the superintendent at McComb. Later he was chief clerk to the general superintendent at New Orleans.

In 1915 Mr. Beven was appointed trainmaster of the Louisiana division at McComb, and in 1917 he was promoted to superintendent of the New Orleans terminal division. In 1918 he was appointed special assistant to Charles H. Markham, regional director of the United States Railroad Administration, at Atlanta, Ga., and later held the same position under Mr. Markham after the latter became regional director at Philadelphia. In 1919 Mr. Beven became assistant to the federal manager of the Illinois Central at Chicago, and in 1920, after the railways were returned to private operation, he became assistant to the senior vice-president. In 1923 he was named assistant to the president; in 1925 vice-president; and in 1931 senior vice-president. On December 14, 1938, he was elected to the presidency to succeed the late L. A. Downs.

John L. Beven

The Beven Regime

At the time of his death Mr. Beven was also president of the Chicago & Western Illinois, a director of the Central of Georgia, chairman of the Peoria & Pekin Union, a director of the Terminal Railroad Association of St. Louis, chairman of the Madison Coal Corporation and a director of the Illinois Institute of Technology.

As was true of most railways, the period of the depression was an extremely difficult one for the Illinois Central, and its management was still confronted with very difficult problems when Mr. Beven became president. But his thorough experience as an operating man and executive, his unexcelled knowledge of the property and the ability and tireless energy which had raised him to the top when still young, pulled the railroad safely through.

In recent years under Mr. Beven's regime the Illinois Central, like most railways during the same period of partly depression and partly war, experienced a huge swing from an extremely low to an extremely high level of traffic and earnings. The tonnage originated and received from connections rose from 33,088,832 in 1938 to 58,387,900 in 1943, net ton-miles increased from 10,649,230,000 in 1938 to 26,594,110,000 in 1943, and revenue passengers carried one mile rose from 604,132,616 to 2,000,549,610. As a result, total operating revenues mounted from $105,415,827 in 1938 to $247,637,579 in 1943. Operating expenses increased substantially during this period but the operating ratio declined from 72.69 per cent to 64.53 per cent. Net income rose from $1,114,096 in 1938 to $23,581,567 in 1943.

Several years ago, the Illinois Central adopted a policy of debt reduction. Since December 31, 1938, the company has reduced its funded debt from $360,638,000 to $282,150,000, or $78,488,000. Debt reduction in 1944 alone was about $23,600,000.

Pending election of Mr. Beven's successor, the executive committee has placed R. E. Connolly, vice-president (accounting) and secretary and treasurer, in charge of management.

Milwaukee Tests Train Communication

Inductive system gives good results in head-end to rear service on freight trains and between wayside station and trains

Conductor in Caboose at Telephone

DURING December the Chicago, Milwaukee, St. Paul & Pacific inaugurated an extensive series of tests to determine the benefits of train communication on different divisions of the railroad, as well as on different types of trains and locomotives. In the initial tests the equipment was installed on a Diesel-electric locomotive which is regularly assigned in through freight service between Milwaukee, Wis., and Kansas City, Mo., 527 miles. The apparatus for the rear of the train was installed in an express car, temporarily assigned to this service and made up in the train just ahead of the caboose. One test wayside station was equipped at Beloit, Wis., which is 84 miles from Milwaukee on the route to Kansas City. After tests on this territory have been completed, the apparatus is to be removed from the Diesel-electric locomotive and installed on a steam locomotive for further tests on lines between Chicago and Minneapolis.

Later the equipment will be tested on electric locomotives in the electrified territory between Harlowton, Mont., and Avery, Idaho, 440 miles, as well as between Othello, Wash., and Seattle, 216 miles.

Caboose Equipment

The equipment in the caboose used by the conductor is the same as that in the locomotive cab used by the engineman. Normally the hand set including the transmitter and receiver is hung on a hanger at the left side of the case as shown in the illustrations. On the face of this case is a dial for adjusting the volume of the loud-speaker which is mounted on the wall to the rear of the cab.

Normally the equipment in the locomotive and the caboose is in service to receive incoming calls which are reproduced by the loud-speaker. For example, if the conductor wishes to talk to the locomotive, he removes the hand set from the hook, holds it to his head, and when speaking he presses a button on the handle of the hand set. The conductor would say—"caboose number 11 calling engine 44, over." The word "over" indicates the end of the call or statement, so that the engineman will know when to come in with his answer. The engineman when hearing the call, takes his hand set and answers—"engine 44 answering caboose 11. What do you want? Over."

When the conversation is finished, both hand sets are then returned to the hangers.

The First Trial Trip

To the left of the dial is a small lamp which is lighted to indicate that the equipment is energized ready to receive messages.

A lamp to the right of the dial is lighted when a message is being sent, and a lamp marked "speech control," above the dial, flashes intermittently when the person talking is using the correct volume of voice. This is an aid to a man learning to use the communication system.

During the first trial trip between Milwaukee and Kansas City on December 6 there were several occasions when the train communication was useful. When cars were set out at Sturtevant, Wis., 23 miles from Milwaukee, the conductor and engineman used the telephone to advantage in recoupling the train and reporting when the train line was pumped up, as well as when the conductor gave a verbal highball for the train to depart.

A few miles east of Lucerne, Mo., the train parted at 10 cars ahead of the caboose. Both portions of the train came to a smooth stop with a spacing of about 15 car lengths. The train communication was used to advantage in keeping all persons informed of the progress made in setting out the damaged car, recoupling, pumping up the train line, and getting under way again.

Test Records

As the tests are being continued, a record is maintained of the numerous instances in which the use of the train communication system is an aid in train operations. When within 25 miles on either side of Beloit, communication was available between the wayside office at that station and either the locomotive or the caboose. On tests made a few days later the normal range was established as about 50 miles.

After analyzing the records, J. P. Kiley, assistant general manager, made a statement to the effect that train communication will justify itself in reducing the duration of delays due to unusual circumstances, such as hot boxes or when trains break in two, and in fact on every occasion when trains make unusual stops. Thus from the few tests made already it would seem that the operating officers are convinced of the benefits of train communication to train operations.

The tests are to be continued for several months, not only to assemble more information on the use of the system, but also to determine the adjustments required to adapt the inductive system of train communication to all the various local conditions on different parts of the Milwaukee as well as on the steam, electric and Diesel-electric types of locomotives.

Inductive Communications

The equipment used in these tests is the Union Switch & Signal Company's inductive system of train communication, in which the transmission between the head-end and rear of the train as well as between the train and wayside station is accomplished by means of 88 kc. frequency modulated carrier impressed inductively on the rails and the wires on the pole line, so that the energy is not broadcast over an ex-

tended area as in conventional radio, but rather is confined to the railroad right-of-way and immediate vicinity thereof.

Transmitting from Caboose

This installation of inductive train communication is adjusted to operate within the low power limits of the Federal Communications Commission and, therefore, is not in the same class as radio broadcasting, and, for this reason, no assignment of frequencies is necessary. When transmitting from the caboose, for example, the message could be picked up by an efficient radio receiving set tuned to 88 kc. located any distance up to about 2,000 ft. from the track, providing the atmospheric conditions were good for radio reception. No commercial F-M radio receiving sets are tuneable in this range.

Transmitting from a caboose, for example, is accomplished by a single wire loop, one end of which is connected to a bearing on a truck at one end of the car; the wire extends through the electronic sending apparatus, then up to the roof for the full length of the car and down to connect with a bearing on the truck at the other end of the car, so that the sections of rail which are at various times between the two trucks are included in the one-turn loop. The wire in this loop is No. 4 copper. The installation does not require that either truck be insulated from the car. The rail joints need not be bonded, and, as a matter of fact, no bonds are in service on more than half of the 527 miles of the Milwaukee route between Milwaukee and Kansas City.

The voice currents delivered from the microphone circuit modulate the carrier frequency delivered by an oscillator. The modulation is a frequency modulation and is accomplished by means of a reactance tube which varies the frequency of the oscillator over a predetermined range at a rate which depends on the frequencies of the voice currents. The output of the modulator is amplified in the driver and again in the power amplifier consisting of four 6L6 tubes. The modulated carrier current goes to the output transformer which supplies the energy to the transmitting loop. The supply to the electronic transmitting equipment requires about 0.5 amp. at 400 volts d-c. The transmitting loop, when sending, carries about 10 amp. and about 60 watts.

The Receiving Apparatus

The receiving coil, which consists of 100 turns of wire about 10 in. in diameter, is mounted on the roof of the caboose, this being preferable to a location under the car over a rail because, when so mounted, noise was introduced when passing over insulated rail joints.

The energy picked up by receiving coils is amplified in its received form in two stages of a carrier current amplifier. It is then heterodyned with the output of an oscillator to produce an intermediate frequency which is chosen higher than the carrier frequency. The intermediate frequency which carries the initial modulation is then amplified through three stages, the last of which serves as a limiter. After this amplification, it goes through a discriminator which is the frequency modulation term for a de-modulator. Here the voice frequency is separated from the intermediate frequency. The voice frequency is then further amplified and delivered to the loud-speaker or telephone receiver. The band of frequencies used in this system is about 6,000 cycles wide, that is 3,000 cycles on either side of the nominal carrier frequency. This makes available a voice band from approximately 200 to 2,750 cycles which is capable of giving a satisfactory reproduction of voice.

Rails and Line Wires Used

When this system is adjusted to operate at 88 kc., transmission by rails only between vehicles is limited to about 2,000 ft., and for greater distances the use of line wires is essential. On the territories where these tests were conducted the number of wires on the telegraph and telephone pole lines varies from about 50 on the 28 miles between Milwaukee and Sturtevant, to two on the 35 miles between Clinton, Iowa, and Davenport. In general the system will operate with even one line wire, but the efficiency increases in proportion to the square root of the number of line wires; for example, 100 wires would be 10 times better than one wire. For normal operation the pole line should be about 100 ft. from the track, but the system is designed to operate satisfactorily where the pole line is up to 200 ft. from the track.

On sections of railroad where the standard location of the pole line is nearer the track the power required for the operation of the train communication system can be cut in half for every 15 ft. less than 100 ft. distance. On the other hand, if the pole line is uniformly 15 ft. more than 100 ft. from the track, then the power required would be twice as much as if the distance were 100 ft. Expressed in other terms, it is roughly estimated that one decibel is lost for every 10 ft. increase in the separation between the track and pole line.

When the train was being made up in the Muskego yard in Milwaukee, the Diesel-electric locomotive was being serviced in the engine house about 1.5 miles away. No pole lines extended in the general direction between this yard and the enginehouse but there are several overhead viaducts which carry street car lines in this general direction. As a result, satisfactory communication was maintained between the caboose in the yard and the locomotive while in the enginehouse as well as en route to the yard. On the other hand, when passing through certain cities, such as Savanna, Ill., Clinton, Iowa, and Davenport, where there are no pole lines within the vicinity of the tracks, the train communication system did not function.

Communication Power Supply

The electronic equipment of this train communication system operates on a supply of 400 volts d-c. which is produced by a small dynamotor rated at 500 m.a. output at 400 volts. On the caboose the dynamotor is fed from a set of 16 cells of 450 a.h. lead storage battery. For these tests, as explained previously, an express car is being used ahead of the caboose, and this set of batteries is included in the regular car-lighting system on this car. When in condition to receive messages the discharge from the battery to the dynamotor is about 6 amp. at 32 volts, and when sending the discharge is about 12 amp. On the locomotive the train communication equipment is fed from the 32-volt sources of d-c. used also for lighting.

Electronic Equipment

The electronic equipment for either the caboose or locomotive is all contained in a sheet metal case 16 in. high, 16 in. deep and 48 in. long. The equipment is in three separate units, a sending set, receiving set and a power unit, each of which are plug connected and can be removed independently.

Engineman Using Train Telephone

How to Sustain Good Railroad Service

3-part formula presented for effective post-war transport: (1) land grant rate repeal, (2) quashing of anti-trust persecution, (3) self-support for rival transport agencies or tax exemption for railroads. Santa Fe could not have done its war job except for suspension of train-length limitation

By F. G. GURLEY
President, Santa Fe

WITHOUT sympathetic understanding and help from the shippers advisory boards, the railroads could not have functioned as they have during the war. When we consider what lies ahead we realize how much the continuance of their co-operation and assistance means to us. The committees which strive for greater car efficiency have been especially helpful. My experience with the man-power situation on our railroad has given me knowledge of some of the problems confronting these committeemen in getting cars released.

While shippers board members are more concerned with freight than with passengers, they know that new passenger cars cannot be obtained and why it is that passenger trains are carrying more people than anyone likes to crowd onto them, and why they are doing more local express and mail work than good practice would suggest.

Train Limit Hobbled Santa Fe

There have been some accidents and we are asked questions about the safety of railroad travel. Safety is the watchword of the railroads, and despite the stress of war-time transportation and thousands of new employees, the fact is that during the first eight months of 1944, which are the latest months for which full statistics are available, passengers injured or killed per million passenger-miles were approximately 60 per cent less than in the normal year of 1940.

The task ahead may be harder in many respects than what we have come through. It will be recalled, however, that some four years ago there were doubts in some quarters about the then existing physical capacity of the railroads to meet war requirements and their financial ability to expand sufficiently. No one knew then just what would be the transportation requirements of the nation during this war. All we need to say now is that with the shippers' help and the assistance of the Office of Defense Transportation and others we made expansions which enabled us to meet the necessities of war transportation.

For many years the capacity and efficiency of the Santa Fe had been artificially restricted. Under Arizona law we were prohibited from running freight trains in excess of 70 cars, or running passenger trains of more than 14 cars. Under an agreement with the trainmen made more than forty years ago we were prohibited from handling more than 50 loads into San Bernardino, Calif., from the east.

This rule had persisted despite many improvements in the art of braking during those forty years and despite other improved facilities. Under another agreement with the train crews we were prohibited from hauling more than 2,900 tons with double-headers between Needles, Calif., and Winslow, Ariz.

Our yard tracks, our passing tracks and the pulling capacity of our locomotives throughout a period of years had been attuned to these artificial restrictions. Following the outbreak of war, the federal government, functioning through the Interstate Commerce Commission, issued orders which resulted in our being freed of these artificial restrictions for the duration of the war. Since, however, our locomotive, sidings and yard tracks were in keeping with these artificial limitations upon us, the removal of these restrictions could accomplish little until we could get locomotives with greater pulling capacity, and until we could build longer sidings and extend our yard tracks. So, while we were moving the heaviest transcontinental business we ever had experienced, we had at the same time also to build these longer and additional tracks and to acquire the locomotives as quickly as possible. This we succeeded in doing.

Absentee Ratio Is High

The State of Oklahoma also had passed a 70-car limit law in 1937 and that too was set aside for the duration of the war, but in Oklahoma we were able to return immediately to an efficient method of operation. The difference between the situations in Arizona and Oklahoma was that the Oklahoma law had been enacted after we had built up an efficient transportation plant, while the Arizona and California limitations had forestalled the adoption of modern operating practices. If it had not been for the removal of these artificial restrictions and the enlargement program which was adopted immediately, the Santa Fe could not have met the war demands as we have.

The question of man-power is the most perplexing war-time question which confronts us. There have been many times when we were hard pressed to move business because we didn't have enough men at the moment. The great bulk of our older employees are working steadily and putting in long hours; despite that, the fact is that turnover and absenteeism have reached the highest peak in the history of the Santa Fe. Notwithstanding new eating places and improved housing, and also the labor stabilization plans adopted pursuant to regulations of the War Manpower Commission, it is difficult to develop effective procedures to overcome the inclination of many new workers to shift from one job to another, or from one part of the country to another.

"Piecemeal" Offerings

One of the great difficulties in securing needed personnel is the inability of railroads to obtain from the War Manpower Commission the right to compete with certain so-called war industries on an equal basis. Some relief was afforded in October, 1944, in respect to three occupations, viz., brakemen, switchmen and firemen.

For these three classifications our railroad and twelve others were given a class "A" priority rating.

The fact that our overall shortage was greater in these three occupations sixty days after the issuance of the class "A" priority rating than it was when the priority was granted, is evidence of the terrific turnover in force, and demonstrates the weakness of a plan which tries to maintain a sufficient force through what may be termed "piecemeal" offerings by the War Manpower Commission.

The railroads do not have as high a priority rating as other industries engaged in war production in spite of the evident fact that, unless the transportation system can transport the raw products to the war plants and the finished products from such plants, the war industries will not be able to use the additional men which higher priority than that accorded the railroads may let them hire.

Prior to the German break-through of December 16, 1944, there were reasons to believe that 1944 would be the peak year in freight transportation on a national basis, but I believe no one can now forecast what effect that break-through will have upon national trans-

This article is adapted from an address by Mr. Gurley on January 5 to a joint meeting of the Traffic Club of Chicago and the Midwest Shippers Advisory Board.

portation requirements. We of the Santa Fe have thought that our maximum load will result largely from the traffic stimulated by the West Coast war industries and the off-shore military movements from California ports. These off-shore movements are expected to be heavier as the war against Japan is intensified. We have confidence that our plant capacity will measure up to the maximum requirements. We have met some substantially increased demands already. For example, our westbound transcontinental freight traffic in December was 46 per cent heavier than a year ago.

A Favorable Atmosphere

Because we have not been able to obtain new passenger cars, it is doubtful if there is much reserve in our passenger carrying capacity. In recent months military travel on the Santa Fe has declined, but civilian traffic has increased to an extent greater than the decline in military travel. According to our present understanding, we may anticipate our greatest passenger transportation problem when large numbers of the military forces are returned to the country and are given furloughs of a month or so.

There are many interesting aspects of railroad post-war transportation prospects. New technologies are developing. Our people possess the requisite skill and earnestly desire to give improved service. The extent to which engineering developments and new technologies will be employed and the degree of other improvements in railroad transportation will be affected greatly by circumstances which create the atmosphere of transportation. I shall mention three problems which, if handled properly, should help create a favorable atmosphere.

(1) Land Grant Rates. — The American people have not yet disposed of the land grant question. A bill was introduced in the House on December 2, 1941, the effect of which was to abolish land grant rates on government traffic. The House Committee on Interstate Commerce reported the bill without amendment on March 18, 1942. The bill was debated in the House in the spring of 1942 and was recommitted to the Committee on Interstate Commerce.

Finally in February, 1944, another bill was introduced which was identical to the bill of December, 1941. The bill passed the House in May, 1944, and was messaged over to the Senate. There it was referred to a sub-committee of the Senate Interstate Commerce Committee which for various reasons functioned rather slowly but finally on November 14, 1944, the sub-committee made its report to the full committee and the full committee on November 28 reported the bill favorably with certain amendments. The bill was never considered by the Senate as a whole and, of course, died when Congress adjourned. The necessity now exists for introducing the bill again in the new Congress and that action is contemplated.

(2) Anti-Trust Suit.—In my opinion one of the most unwarranted attacks ever made upon a great American institution is the so-called Western Railroad Anti-trust Suit. It is not my purpose here today to try this suit, but I must devote some discussion to the philosophy which inspires it, the stubborn disregard of both history and public need which that philosophy indicates, and the blind reverence for out-moded court decisions, such as one in 1897 identified as *United States* v. *Trans-Missouri Freight Association*, in which that philosophy finds its support.

That decision pronounced the rule of cutthroat competition, but not the wisdom of it. As to that the court stood neutral. It said:

> "It may be that the policy evidenced by the passage of the act itself will, if carried out, result in disaster to the roads and in a failure to secure the advantages sought from such legislation. Whether that will be the result or not we do not know and cannot predict. These considerations are, however, not for us. If the act ought to read as contended for by defendants, Congress is the body to amend it and not this court."

but it also said:

> "It may be entirely true that as we proceed in the development of the policy of public control over railway traffic, methods will be devised and put in operation by legislative enactment whereby railway companies and the public may be protected against the evils arising from unrestricted competition and from rate wars which unsettle the business of the community."

Changing Times and Laws

That may have seemed cold comfort in 1897, but as the years passed the implied prediction came true. The Hepburn Act of 1906, giving the Commission power to fix maximum rates; the Mann-Elkins Act of 1910, giving it power to suspend them; the Court's discovery of the rule of reason in the Standard Oil case in 1911; the concept of the Shipping Act of 1916 whereby the shipping industry was made exempt from the anti-trust laws, and regulation by a public administrative board was substituted; the Transportation Act of 1920 giving the Commission power to fix minimum rates; the emergence of the concept of a national transportation system evidenced by that Act, and its new philosophy of transportation and regulation; the Commission's investigation of conference rate making and its publication of the facts in 1923, followed by twenty years of apparent acquiescence on the part of both Congress and the Department of Justice; the Emergency Transportation Act of 1933 with its recognition of necessity that carriers act in concert for the protection of the public as well as their own protection; the 1935 Motor Carrier Act with its declaration of policy to foster sound economic conditions in highway transportation and among highway carriers and to avoid unfair or destructive competition; the Civil Aeronautics Act of 1938 adopting the same policy in respect of air carriers and creating machinery and procedure for its fulfillment; the Transportation Act of 1940 announcing that policy for carriers by rail, highway and inland waters, and confiding its administration and accomplishment to the carriers themselves as well as to the Commission. This partial recital should suffice to show how times and laws have changed.

Bible with No New Testament

Only the Department of Justice is unmindful of these things. The ancient decision of *United States* v. *Trans-Missouri Freight Association* is the anti-trust Bible of the Department of Justice. It contains only an Old Testament.

The Attorney General and his assistants ignore the promises of even their own sacred text and the fact that those promises have been kept, and worship according to a ritual of retribution that disregards all that has come to pass, building their altars for living sacrifice long after their temple has been destroyed, and lifting up their voices for fire to descend and consume unbelievers.

The best minds of this nation have worked for a half century on the perplexities originating in the Trans-Missouri case, and they have produced a sound philosophy for carrier regulation, which is commonly if not universally accepted. It may be stated thus:

Among carriers subject to the Interstate Commerce Act, and included in the congressional concept of the national transportation system, cooperative action is necessary and complex. It frequently involves competitive stresses among shippers, markets, regions and commodities, as well as among the carriers themselves, so that its governance should not depend upon individual predilection but should be orderly and systematic, and yet should be upon investigation, case by case, according to practical public interest in the light of actual needs and conditions. Only the Interstate Commerce Commission has the equipment, the experience and the guidance of elaborate statutory instruction which are indispensable for the exercise of the regulatory function. The Department of Justice has not; and neither its attitudes nor the decisions of the courts in particular cases could possibly be so coordinated as to *preserve the predictability which is so essential to sound and just public regulation.*

Congress never intended to entrust that function to the Department of Justice or to the courts; the courts have always disclaimed it.

Referral to I. C. C. Likely

To clarify the intent of Congress and facilitate the accomplishment of the philosophy I have outlined, legislation probably will be proposed at this session of the Congress committing this whole matter to the Interstate Commerce Commission and endowing its decisions with finality which will put them beyond the reach of interference under the pretext of anti-trust law proceedings.

(3) Tax-Financed Transportation.—A third question of national policy which should be examined closely is the matter of contribution of public money for the benefit of other forms of transportation. Please keep in mind the

high ratio of railroad property investment to gross revenue. Some studies made about four years ago showed that the ratio of property investment to gross revenue was:

$5.91 for the railroads,
$1.66 for water carriers,
69 cents for the air lines,
72 cents for intercity buses, and
35 cents for intercity trucks.

The figures do not include depreciation or inventory.

It would seem to be axiomatic, requiring no debate, that one form of transportation will be seriously disadvantaged if competing forms are aided by the general taxpayers. It is as if two boxers were put into the ring, one with both hands free and the other with one hand tied behind his back.

All transportation agencies other than railroads are, in one form or another, the beneficiaries of public funds. On December 20, 1944, the President signed an Act which provides that the federal government will expend a half billion dollars per year for three years for highway construction, on the premise that the various states will put up an equal amount. The bill, therefore, contemplates that there will be a highway building program to the extent of a billion dollars per year for three years. Not more than ten per cent of the sums apportioned to the states may be used for railway-highway projects, i.e., relocation of grade crossings, grade crossing separations, and signal protection.

Military Need for Railroads

These improvements will result in better and faster highways than we have had before. Hills will be cut down and curves will be flattened. Apparently it is the thinking on the part of the federal government that for the benefits which come to the nation by reason of improvements in this one part of our transportation plant, tax monies should be used.

The railroads have been reducing grades and curvature for years, but they must get their capital for new improvements from rates charged for services rendered. If those revenues are adequate, they can meet their payrolls, meet their bills for materials and supplies, and may be lucky enough to have some money over for a return to investors.

Perhaps the question of national defense influences these highway expenditures on the part of the federal government. If so, I think it fair to say that the American public during the last few years has learned that the railroads are absolutely necessary for the transportation of men and commodities during a period of war. They have learned unmistakably that, notwithstanding the growth of other forms of transportation, the railroads are still the one indispensable part of our national transportation system.

I have thought that the most logical and most equitable policy to pursue would be to let each transportation agency stand on its own financial feet. Let each agency derive its revenues and meet financial needs through its own private enterprise, and forego these payments from the pockets of the taxpayers. Is this too much to ask? Perhaps it is in this day of ours. If there is no escape from such tax outlays, and if the public expenditures for the development of waterways, airways, and highways are to continue, then in all fairness let us face what this means to the railroads.

For my part I want nothing to do with anything which even approaches putting the government in the railroad business. But if, as a people, we believe that for purposes of national defense and other benefits there should be a continuation of the use of tax monies for improvements in other systems of transportation, then let's consider something like this:

To the extent that the railroads make permanent roadway improvements, especially line and grade changes, let them receive tax exemptions.

In other words, why not allow us a tax credit to offset a part of the cost of these improvements in our roadway in keeping with the policy under which the federal government matches dollar for dollar the money advanced by the individual states for improvements in highways?

The exemption from some or all federal taxes is not a new or unheard of thing. The provision for exemption in whole or in part in order to further some alleged public good is well established as a principle of federal taxation policy. I need only to mention the total exemption of cooperatives by way of example. The different tax rates or tax levels for different net incomes is another example. The difference between corporations and individuals is a third.

My first thought and my first hope would be against all federal aid. This suggestion of a tax exemption is made only in the thought that in the light of current events governmental expenditures during the post-war period appear to be achieving acceptance as an inescapable part of our economy.

Believing in the necessity for preserving a healthy and aggressive railroad system and believing in the fairness of the American people, I recommend careful consideration by our people of the equity of this plan, to be effective during the time when money is being expended by the federal government for the betterment and improvement of the other systems of transportation.

I. C. C. Report

(*Continued from page 151*)

built watercraft in inland and coastal trades and the increase in the level of labor, fuel, stores, rentals, and other operating costs." It noted also that "some appear to contemplate a joining of land with water transportation"; and referred to its own duty "to consider, in the light of the evidence, wherein the public interest lies in these possible new types of operation."

In a lengthy discussion of "operating authorities," the commission reported that common-carrier buses now hold certificates "over practically all the main highways in the United States"; while regular-route common-carrier trucks are likewise carrying on certificated operations "over practically all of the main highways and between most of the communities in the country." The status of "practically all" water carriers operating on the Great Lakes and in the coastwise and intercoastal trades has been established; thus most pending water-carrier applications cover operations on the Mississippi river system and the Gulf intrcoastal waterway.

The report's review of the Ex Parte 148 rate case was prepared before the commission's December meeting suspending the increases for an additional year, from January 1, 1945, until January 1, 1946. A brief reference to the Nos. 28300 and 28310 investigations of the class rate structure and Consolidated Freight Classification said that reports in both proceedings "are in course of preparation." In supporting its legislative recommendation with respect to standard time, the commission complained that "the three-way conflict between federal, state, and municipal standards of time continues." The remainder of the report embodies the usual separate accounts of the work of the commission's various bureaus.

NEW BOOK . . .

From the Hills to the Hudson, *by Walter Arndt Lucas. 327 pages. 6 in. by 9 in. Bound in cloth. Illustrated. Published by the Pierce Business Book Co., 106 Greenwich street, New York 6, N. Y. Price, $4.*

In his second work on localized railroad history (his first book dealing with the New York, Susquehanna & Western), Mr. Lucas provides a painstaking account of the founding, construction and operation of three railroads which now form the Erie's main line between Jersey City, N. J., and Suffern, N. Y. Drawing upon such contemporary sources as the American Railroad Journal and the Paterson Intelligencer, the author touches briefly on stage coach days and on incidental background of local history, before taking up the Paterson and Hudson River Rail Road, the earliest of the "Paterson group." The other two roads—the Paterson and Ramapo and the Union railroads—were then dealt with.

He makes ample use of illustration, there being maps, timetables, portraits, drawings of locomotives and cars, as well as a number of scenes along the road. A chapter is devoted to motive power and rolling stock and the cost of its operation and construction. There are references, too, to still other phases of railroading—such as the store-door delivery of freight and passengers. Generally regarded as a modern innovation, this, it is noted, became a regular feature of the operation on the Paterson & Hudson River in 1834.

Railroads-in-War News

Predict Little More 1st Quarter Traffic

Shippers Advisory Boards puts carloading forecast 0.2% over 1944

Freight car loadings in the first quarter of 1945 are expected to be only slightly greater than actual loadings in the same quarter of 1944, according to estimates compiled by the 13 Shippers' Advisory Boards.

On the basis of those estimates, loadings of the 28 principal commodities will be 8,787,396 cars in the first quarter of 1945, compared with 8,768,854 actual car loadings for the same commodities in the corresponding period in the preceding year. Seven of the 13 boards estimate an increase in carloadings for the first quarter of 1945 compared with the same period in 1944, but six estimate decreases.

The tabulation below shows actual carloadings for each district in the first quarter of 1944, the estimated loadings for the first quarter of 1943, and the percentage of increase or decrease.

The boards expect an increase in the first quarter of 1945, compared with the same period one year ago, in the loading of 14 of the commodities listed, and a decrease in 14. Among those showing the greatest increases are the following:

Fresh fruits other than citrus, 20.2 per cent; agricultural implements and vehicles other than automobiles, 13.2 per cent; canned goods, 8 per cent; manufactures and miscellaneous, 5.7 per cent; ore, 5.3 per cent; paper, paperboard, and prepared roofing, 5.3 per cent; fresh vegetables other than potatoes, 3.8 per cent; salt, 3.6 per cent; citrus fruits, 3.1 per cent, and cottonseed and products except oil, 3 per cent.

Commodities for which decreases are estimated and the amount of the decrease include the following:

Livestock, 8.2 per cent; gravel, sand and stone, 7.3 per cent; brick and clay products, 7.2 per cent; petroleum and petroleum products, 6.7 per cent; hay, straw and alfalfa, 6.3 per cent; lumber and forest products, 6 per cent; potatoes, 5.9 per cent, and cement, 5.1 per cent.

Shippers' Advisory Board	Actual Loadings First Quarter 1944	Estimated Loadings First Quarter 1945	Per Cent Increase
New England	199,492	195,547	2.0d
Atlantic States	981,705	1,015,308	3.4
Allegheny	1,221,967	1,203,677	1.5d
Ohio Valley	1,110,073	1,117,721	0.7
Southeast	1,019,605	1,014,610	0.5d
Great Lakes	562,574	569,108	1.2
Central Western	347,864	355,935	2.3
Mid-West	1,195,244	1,201,739	0.5
Northwest	324,819	303,276	6.6d
Trans-Missouri-Kansas	421,898	434,628	3.0
Southwest	652,747	630,352	3.4d
Pacific Coast	452,049	472,312	4.5
Pacific Northwest	278,817	273,183	2.0d
Total	8,768,854	8,787,396	0.2

Seaboard Supplies Manual to Employees

The Seaboard Air Line has issued an informative manual covering the essential facts about the company's business, which is being distributed to all employees of the railway. Entitled "Teamwork in Scheduled Transportation," the manual is printed in attractive form as a paperbound, 8½-in. by 11½-in. booklet of 32 pages.

The publication contains a foreword in the way of a greeting to employees by the company's receivers, which urges the employee to retain the book for ready reference after he has read it. As an inducement to this end, a blank page is provided with ruled spaces wherein the employee may record his social security number, his service record and other similar personal information. Other chapters include a brief account of the history of the railroad industry and its relationship to the national economy and the war effort; a brief history of the Seaboard; a list of the company's freight and passenger schedules; a discussion of salesmanship; a discussion of public contacts (1) personal, (2) telephonic, and by correspondence; general office practices and standards of performance; a list of the company's service emblems. The booklet also contains a map of the system.

Telegraphers Demand Six-Day Week

Demands for a six-day week have been filed by the Order of Railroad Telegraphers upon railroads which do not now have a six-day week for telegraphers in effect. Time and one-half is sought for the seventh day and for seven holidays. Conferences on individual railroads are expected to be concluded by January 15.

Byrnes Puts Ban on Large Conventions

"Requests" cancellation when 50 persons attend; halts post-war trade shows

In a statement released at the White House January 5, after stories indicating some such action had become widespread, Justice Byrnes, director of war mobilization and reconversion, "appealed" for a curtailment of "non-essential" inter-city travel, and particularly for a cessation of conventions, trade shows and similar group meetings "not necessary in the war effort."

This "request" was made applicable to all conventions to be attended by more than 50 persons and scheduled to be held after February 1, unless the larger gatherings first received the approval of a committee designated to determine if the need for such meetings is "sufficiently in the war interest to warrant the tax on transportation and services." Justice Byrnes went on to express the hope that group meetings of less than 50 persons would be "held to a minimum," and that all "post-war trade shows" would be cancelled.

Meeting Will Need an O. K.—The O. W. M. R. director, "with the approval of the President," named Colonel J. Monroe Johnson, director of the Office of Defense Transportation, to head the committee selected to act on requests for approval of meetings of more than 50 persons. Other committee members are Under Secretary of War Robert P. Patterson, Under Secretary of Navy Ralph A. Bard, Chairman of the War Production Board J. A. Krug, and Deputy Chairman of the War Manpower Commission Charles M. Hay.

Commenting on Director Byrnes' appeal, Colonel Johnson said, "the committee is very anxious that the objectives of Justice Byrnes request—relief of overburdened transportation and housing facilities—be fully and speedily attained." He added, "We have all been concerned not only about the problem of absenteeism of workers engaged in the producing and transporting of desperately needed war materials but also over executive absenteeism caused by attendance at the many conventions, industry meetings, trade shows and conferences."

Colonel Johnson announced that he has appointed Richard H. Clare, on leave from the Pennsylvania Railroad, as his special assistant in this matter and will recommend to the committee his appointment as secretary.

The committee will act not only on requests for determination of the war neces-

sity of meetings submitted by the public but also on similar submissions by civilian government agencies.

This move was another step in the government effort to restrict civilian travel pending cessation of the war in Europe, the most recent previous move of this nature having been the discontinuance of horse and dog racing at Justice Byrnes' "request." The "request" in that instance was followed by orders from the O. D. T. and the Interstate Commerce Commission which were designed to prevent the transportation of horses and dogs for racing purposes. While no orders specifically tied up with the "request" aimed at conventions followed its release, a sudden upsurge in hints and discussions of travel rationing or other restrictive measures developed in the press, giving rise to some suspicion that official sources might have had some part in focusing the attention of reporters and commentators on such possibilities.

Federal Travel to Decline—Justice Byrnes stated, however, that "he was so certain that his appeal would receive immediate public support and general co-operation that he has taken no measures to determine government enforcement procedures which might be instituted." He went on to "urge" the general public to "defer non-essential trips," and indicated that he was asking heads of government agencies to reduce travel of government employees to the minimum consistent with their responsibilities.

The "request" to reduce conventions to a minimum was issued, according to the statement, because the optimism that developed in 1944, leading many persons to believe that victory was at hand, had led to a "substantial" increase in the holding of conventions and post-war trade shows. "This has added a substantial load to our already overtaxed transportation and hotel facilities, with an increasing demand for additional manpower," Justice Byrnes said. He went on to recite comparative figures on railway equipment and passenger traffic for this war and World War I to lend emphasis to his analysis of the transportation load.

Cancellation of three conventions scheduled for early in 1945 was announced by Colonel Johnson before the Brynes "request" was issued, bringing to 183 the number of such cancellations reported through O. D. T. in the past year. "This patriotic assistance is appreciated," the O. D. T. director said, "but cancellations have been far too few in comparison with the large number of conventions that have been held and are being planned in spite of the strain placed by convention-goers on overburdened railroads and overcrowded hotels."

Fla. Travel Warning—Supplementing earlier warnings directed at vacation travelers, particularly those visiting Florida this winter, that extra equipment or special trains will not be made available for the convenience of persons seeking accommodations to return home at the close of the winter season, Colonel Johnson issued a statement last week to the effect that travelers to and from winter resorts face further inconvenience as a result of the recent German counter-offensive.

"The military situation in Europe means more than a bulge on the war maps," he declared. "It should be obvious that the casualties . . . have increased and may continue to increase. As soon as the wounded are in condition to be moved to this country they will be shipped to various East coast ports. In order to effect the transportation from shipside to hospital with speed and dispatch, it will be necessary to call on the railroads for the needed equipment. The first place we must look for extra equipment is on the regular runs of the roads serving resort areas.

"These highly important casualty movements will be made with as little inconvenience to the general traveling public as possible," the O. D. T. director continued, but he warned prospective vacation travelers that they "face the definite possibility of being stranded for long periods of time, even though return transportation and accommodations have been arranged and paid for."

The Ponies Will Not Move—The situation arising from the ban on racing was further clarified by an O. D. T. statement last week that authorized owners of race horses and racing dogs to ship their animals "anywhere in the United States" by rail or common or contract motor carrier, provided they file an affidavit with the carrier that the movement contemplated is not for racing purposes. Shipments of such animals to points outside the United States will require an Interstate Commerce Commission permit, it was explained, and such permits will not be issued, according to Colonel Johnson, where the movement is for racing purposes, unless the site of the races is more than 300 miles beyond the borders of the United States.

Another O. D. T. statement, released January 3, pointed out that the order prohibiting the use of privately owned automotive transportation in connection with the movement of horses, dogs, or automobiles for racing purposes was sufficiently broad to cover the use of privately owned automobiles, buses or trucks for the transportation of persons to and from horse, dog, or automobile race tracks. One clause in the order (General Order ODT 14A) is to the effect that "no persons shall transport in or by means of any motor vehicle any person to or enroute to any horse, dog or motor vehicle race," while another clause provides that "no person shall engage, use or employ transportation by motor vehicle for the purpose of attending" any such race.

Steel Price Increases

Interim increases of $2 to $5 per ton in the ceiling prices for five basic steel products at the mill level were announced on January 11 by the Office of Price Administration. The increases, which became effective on shipments as of January 11, are as follows: Rail, all types and grades, $3 per gross ton; hot rolled carbon plates and sheets, $2 per net ton; galvanized sheets, roofing and siding, $3 per net ton; nails and staples other than galvanized, $5 per net ton.

The Eastern basing point prices thus become: Rail, $43 per gross ton; hot rolled carbon plates and sheets, $44 per net ton; galvanized sheets, roofing and siding, $73 per net ton; and nails and staples other than galvanized, $56 per net ton. The O. P. A. announcement stated that the increases were the first industry-wide price rises in basic steel products since 1939, and that they were made on an interim basis pending completion of a cost study now under way.

Ickes Requests Curtailment of Coal Shipments

"Because of transportation difficulties owing to bad weather," the Solid Fuels Administration for War on January 10 requested coal producers in Districts 7 and 8, covering southern West Virginia, western Virginia, eastern Kentucky, and northeastern Tennessee, to ship no more coal until January 15 into the area west of Pittsburgh, Pa., and north of central Ohio, Indiana, and Illinois. By-product coal for steel or gas use was excepted from the request.

The S. F. A. W. action, its announcement said, was taken because "the railroads have requested certain curtailments in coal shipments to alleviate car shortages that will occur on railroads operating in Districts 7 and 8." Moreover, the action was called "absolutely essential to protect the fuel supply"; for if the mines involved were to continue shipping, it "would add to the congestion," and the return of railroad cars to the mines "would be delayed to such a degree that a shortage of cars into which to load new production would cause many mines to close down."

Burpee "Borrows" 8 Railway Experts for M. R. S. Staff

Eight railroaders, five of whom have had military experience either in Alaska, Iran or the South Pacific, have been "borrowed" by Brig. Gen. Clarence L. Burpee to supplement the staff of his 2nd Military Railway Service. Headquarters, European Theater of Operations, in reporting the addition of the six operating experts and two engineering specialists as necessary to "keep abreast of boom developments in a rapidly expanding supply line," explains that with the allied winter campaign "a reality," special equipment for winter operations has added enormously to the load previously handled.

The staff additions follow: Maj. James S. Snyder, of Waverly, N. Y., former div. engr., P. R. R., and on duty in the southwest Pacific for two years) who will rank as an engineer technical specialist; Lt. Col. Worthington C. Smith, of Scranton, Pa., (a former No. Pac. trainmaster and commanding officer of the 791st railway operating battalion, in Iran) who will now be commanding officer of the 729th railway operating battalion, E. T. O.; Lt. Col. James H. Gildea, of Parco, Wyo., (formerly asst. supt. for the U. P.) and who prior to his new operating assignment was general superintendent of transportation, 3rd M. R. S., in Iran; Lt. Col. Herbert S. Huron, of St. Paul, Minn., (formerly a yardmaster with the C. St. P. M. & O.), and an operating expert who was with the 714th railway operating battalion in Alaska; Lt. Col. M. F. Clune, Carbondale, Pa., (div. supt. with the D. & H.) who, prior to his new operating post, was assistant port transportation officer at the Boston Port of

Embarkation; Lt. Col. M. N. Shappell, Omaha, Neb., (commissioned directly from the C. & N. W., where he was an asst. div. supt.); Maj. C. W. McKnight, Savannah, Ga., (also commissioned directly from the Cen. of Ga., where he had been chief train dispatcher; and Lt. Col. C. T. Warren, Clayton, Md., (once div. engr. on the Wabash and on the Ann Arbor R. R.) an engineer technical specialist, who more recently has been on duty as asst. gen. mgr., engineering, 3rd M. R. S., in Iran.

I. C. C. Service Orders

A list of all Interstate Commerce Commission service orders in effect January 1 has been distributed by W. C. Kendall, chairman of the Car Service Division of the Association of American Railroads. The first such list was published as of September 30, 1944, and new editions of the summary probably will be forthcoming at quarterly intervals, it was indicated. The current list not only gives the date of issue and description of the service order, but also indicates how many amendments to the original order have been issued subsequently.

By Amendment No. 2 to Service Order No. 112, effective January 7, the commission suspended the requirements of that order, limiting destination free time on fresh or green fruits or vegetables, during such time as extreme weather conditions prevail. The order itself, and all amendments, will expire December 1 unless otherwise ordered meanwhile. Similar relief on account of extreme weather conditions was provided with respect to the refrigerator car demurrage rules established by Service Order 180 through Amendment No. 1, likewise effective January 7. That order also was set to expire December 1. Lawful tariff provisions will apply instead of the service order requirements during periods of extreme weather, in situations where the orders normally would apply.

Special permit 30 under Service Order No. 271 authorized transportation of race horses or racing dogs to any destination in the United States, provided the shipper files an affidavit with the carrier to the effect that such transportation is not for racing purposes. Waybills covering such shipments must carry a reference to this permit.

General permit No. 1 under Service Order 262, restricting re-icing of refrigerator cars loaded with citrus fruits, has been modified to be applicable to shipments in which tangerines, temple, king or clementine oranges make up 50 per cent of the tariff minimum weight applicable to oranges, rather than 50 per cent of the actual load. The original permit's terms were noted in *Railway Age* of December 30, 1944, page 1005.

Following a request from the Solid Fuels Administration, transmitted by the Office of Defense Transportation, the commission issued Service Order 270, prohibiting carriers from supplying coal cars at Luzerne Colliery, Kingston, Pa., since that shipper's coal was of higher ash content than the S. F. A. regulations allow. The order was announced to become effective December 31, 1944, but No. 270-A, effective January 6, suspended its application until April 6. The original order was set to expire July 1. An explanation from C. J. Potter, deputy solid fuels administrator, attributed such action, which affected several coal producers, to that agency's desire to protect consumers from "unburnable" coal and to conserve cars for the transportation of usable fuel.

The commission's Bureau of Service has asked the Car Service Division to call attention to the fact that permits issued under Service Order 70-A, which have the effect of relaxing that order's 48-hr. limit on reconsignment of fresh fruits and vegetables, do not set aside restrictions on the number of reconsignments or diversions per car which other service orders make effective.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since December 21, and which are of interest to railways:

Electrician's Bits — Electricians' wood-boring bits, conforming to specifications as to styles and sizes, may now be manufactured in addition to the 21 types of wood-boring bits already permitted, although no increase in total production of bits will result.

Fire Hose Couplings—Restrictions on the use of copper and copper base alloy in the manufacture of 1½-in. and 2½-in. fire hose couplings were removed on December 21, through issuance of Order L-39 as amended. Malleable iron, formerly used, is in critically short supply. Also, deflectors on sprinkler heads, for which copper castings were formerly required, may now be made of copper sheet. Alloy containing two per cent tin is now permitted in the manufacture of lever arms of automatic sprinkler heads. No tin was formerly permitted. Restrictions on the manufacture of stirrup pumps and incendiary bomb control equipment have been removed from the order. Also removed are restrictions on the manufacture, sale and delivery of air raid warning devices requiring motors larger than three hp., and on the manufacture, purchase, sale and delivery of smoke, fire or intrusion detector equipment employing photo-electric principles.

Lead—Most civilian uses for lead will be restricted to the annual rate of 60 per cent of the 1944 level through a complete revision of Order M-38. Government officials reported that estimated 1945 requirements are 1,150,000 tons as compared with 970,000 tons of total supplies. Government reserves are less than one month's consumption and have been decreasing at a rate of from 15,000 tons to 25,000 tons per month during the last five months.

Restrictions and availability are defined in the revised M-38 order under three new lists. List A outlines prohibited uses. List B classifies the end uses for storage batteries, cable covering, tetraethyl and ammunition for military use only, for which lead will be 100 per cent available. Lead also will be unrestricted for solders, bearing metals, brass and bronze. Under List C, which embraces the greater portion of civilian uses, lead is restricted in the first quarter of 1945 to 30 per cent of the amount used in the first half of 1944, or at a 60 per cent annual rate.

W. P. B. officials expect that the newly imposed restrictions will effect a 15 per cent to 20 per cent reduction in over-all lead consumption from the 1944 level to bring it in line with expected supplies.

Lumber—Order L-335 and eight directions to the order (Directions 1 through 8) were amended January 5, to reduce the amount of lumber that may be sold without control, and to establish additional controls over particular species and grades that are in critically short supply. Each sawmill covered by Order L-335 is now permitted to ship lumber only on certified orders except when specifically authorized by W. P. B. to fill uncertified orders. Authorization, for which request must be made by letter, will be granted to the individual sawmill only when certified orders cannot be obtained. W. P. B. must be convinced that the mill has exhausted all efforts to get certified orders for this lumber, officials pointed out.

Direction 1, covering sawmill shipments of Douglas fir, white fir, Noble fir, Sitka spruce (except aircraft grade) and West Coast hemlock, formerly permitted mills producing less than 25,000 f. b. m. per day to sell lumber to consumers and distributors on uncertified orders. The new amendment withdraws this permission. The mills may fill uncertified orders only if specifically authorized by W. P. B.

Motor Trucks—Less than one fourth of the motor trucks estimated as needed to meet essential war and civilian transportation requirements during 1945 will be produced and distributed to commercial operators, according to O. D. T. The estimate is based on the 1945 civilian truck program approved by the W. P. B. Increased demands by the armed services for all types of motor transport was given as the chief reason for the severe reduction. The total authorized program amounts to 186,792 light, medium, light heavy and heavy trucks, or 24.1 per cent of the O. D. T.'s stated requirement of 773,935 vehicles.

Prices

Building Brick—Manufacturers of common and face clay building brick in Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island have been granted a ceiling price increase of $3.75 per M above March, 1942 levels, by Amendment No. 66 to Order A-1 MPR-188, effective December 26.

The amendment also revokes any increases previously granted by regional O. P. A. offices to producers of building brick in the six states, including a previous Boston Regional Office order issued on October 20, 1943, which permitted an increase of $2 per M in the ceiling prices of common sandstruck brick for New England manufacturers.

Ice—Natural ice sold by its harvesters to railroads, railway express companies and packers of perishables is exempt from price control in accordance with Amendment 8 to MPR-154, as amended, and Amendment 88 to RSR-1 to the GMP, both effective December 20, 1944. This action was taken, O. P. A. said, because wage increases granted to workers engaged in the harvesting of natural ice have resulted in numerous applications for adjustment of harvesters' ceiling prices, and since many operators keep incomplete records or no records at all, O. P. A. has found it almost impossible to secure the data needed to set fair ceiling prices before the end of the harvesting season.

Petroleum Products—All amendments to the regulation establishing ceiling prices on petroleum products except at retail establishments have been embodied in a collation with the original regulation for the convenience of the industry. It incorporates the 23 amendments issued to date. The 23rd amendment, issued simultaneously with the collation, effective December 28, 1944, will not be printed in separate form. It contains a number of changes that make certain sections clearer and simplify the determination of formula ceilings, particularly on regular housebrand grades of gasoline, branded gasolines of equivalent grades, and on 70-74 octane (A.S.T.M.) gasoline.

Plumbing Fittings—A simple pricing formula applying to all sellers of unplated polished brass plumbing fixture fittings and trimmings was announced in Amendment No. 65 to Order A-1 MPR-188, effective December 23, 1944.

Although manufacturers may now resume production of the brass fittings and trimmings, the use of chrome plating has not been allowed. The new formula permits manufacturers and resellers who had prices in effect for chrome plated brass plumbing fittings and trimmings during March, 1942, to use those prices for the unplated polished articles. The same discounts, allowances and price differentials to the various classes of purchasers in effect during March, 1942, for plated items remain in effect for the unplated articles.

GENERAL NEWS

Dewey Favors More Socialism for N. Y.

Defeated presidential aspirant even wants state to dig St. Lawrence

Governor Thomas E. Dewey of New York, recent unsuccessful Republican contestant for the presidency, has given evidence of the same skepticism of the ability or willingness of uncoerced investment and activity by private enterprise to provide a desirable level of prosperity and employment that President Roosevelt has voiced. On January 4 the New York chief executive proposed a gigantic program of post-war "public works" to be undertaken by the state "to aid in the stimulation of job opportunities after the war."

The New York state treasury had a surplus of $163,000,000 last year, which was impounded to spend for post-war "public works." Governor Dewey recommends that a further prospective surplus of $150,000,000 this year be added to the fund—rather than passing it along as tax reductions to the state's taxpayers who, if they had the money, might be able to find as many job-making and prosperity-producing ways of spending it as the state itself.

$800 Millions for Highways—The New York governor wants to put out $800,000,000 of state money on improvements to state roads—to provide high-speed super-highways, but not at the sole or even the primary expense of those who will use them. He also wants to spend other hundreds of millions of coerced money, wrung from the taxpayers, to provide housing for favored citizens, with the costs paid in large part by other citizens who will not enjoy these facilities. "Private enterprise," he said, "does not seem able to provide adequate housing, at rents which they can afford, for the very considerable number of low income families now living in slums."

Governor Dewey also recommends that the state take an active part in planning and putting up the money for the development of aviation facilities, evidently in the belief that, here also, private enterprise is incapable or unwilling to meet the needs of the situation—and, hence, that funds must be extracted from the taxpayers and channeled into such investments against the will of those who now have the funds and could invest them privately if there were sufficient economic incentives to justify such investment.

Would Dig the "Big Ditch"—He wants further to go ahead with the St. Lawrence Seaway as a state project, if the federal government neglects to do so. The beneficiaries, he says, "would be the residents of this state and nearby areas," but he does not conclude therefrom that these beneficiaries should finance the project, rather than the state's taxpayers (including railroads and power companies, whose business the Seaway is calculated to undermine by subjecting them to competition from a facility which does not have to meet full costs from charges to its customers).

"For years," says the Republicans' unsuccessful presidential aspirant, "I have advocated the completion of the St. Lawrence seaway and power project. During the past decade the means have been found and billions in federal funds have been appropriated, to develop great rivers in other sections of the country, for power, navigation, flood control, irrigation and like purposes. The incomparable resources of the St. Lawrence river should no longer be wasted. If the federal administration is unable or unwilling to proceed, then the State of New York itself should undertake to complete the project on a self-liquidating basis, in cooperation with the Dominion of Canada and the Province of Ontario."

The governor also advocates increases in salaries of state employees, and enlarged outlays of the kind grouped under the term "social security." In general, his program calls for a vast extension of all the usual avenues of state paternalism in providing for the economic well-being of its citizens, saving them the necessity of looking out for themselves—with the provident being mulcted, as taxpayers, to provide "relief"; and "investments" by coercion which they would not make voluntarily on the incentive of persuasive economic considerations.

State vs. Federal Socialism—Governor Dewey defends his proposals, seemingly, on the theory that, if the state does not thus move further along in the direction of all-out socialism, the federal government will beat the local governments to their goal—and, he believes, such development by the federal government would "sap local responsibility and initiative and lead to danger to free government." From the standpoint of the private citizen and taxpayer, state government "enterprise" at a tax cost and with a pricing system which inhibits activity and expansion by private enterprise might appear a a good deal similar to a comparable undertaking indulged in by the federal government.

Railway Comptrollers Honored

Ralph C. Miller, comptroller of the Pennsylvania, Philadelphia, has been elected to membership in the Controllers Institute of America, a technical and professional organization. This group also has reappointed George H. Hess, Jr., Great Northern comptroller, as chairman of its Committee on Ethics and Professional standing.

Fiscal 1946 Budget Is Sent to Congress

Includes estimates for I. C. C., Retirement Board and Mediation Board

Estimates of appropriations to cover activities of the Interstate Commerce Commission, the Railroad Retirement Board, and the National Mediation Board during the fiscal year ending June 30, 1946, were included in the budget for that year which President Roosevelt submitted to Congress with his budget message this week. The estimate for the Office of Defense Transportation will come later when detailed estimates for war agencies are submitted.

I. C. C. Is Trimmed Down—The total fiscal 1946 estimate for the I. C. C. is $8,433,000, a decrease of $761,825 below the $9,194,825 appropriated for the current fiscal year ending June 30, 1945. Decreases are proposed for all phases of the commission's work save general administration where the fiscal 1946 estimate is up $99,000 from the current appropriation. But this item, too, would have shown a decrease except for the transfer to it of $302,000 from the amount allowed for motor transport regulation. However, there was an increase of $6,875 in the amount recommended to be allocated to the cost of handling commission mail.

The breakdown of the I. C. C. total, giving the fiscal 1946 estimate first and comparing it with the fiscal 1945 appropriation in each case, is as follows: General administrative expenses, $3,218,000 and $3,119,000; regulating accounts, $400,000 and $473,000; safety of employees, $550,000 and $604,000; signal safety systems, $178,000 and $182,000; locomotive inspection, $500,000 and $548,000; valuation of property of carriers, $463,000 and $500,000; motor transport regulation, $2,726,000 and $3,250,000; printing and binding, $137,000 and $157,700; cost of handling penalty mail, $30,000 and $23,125; emergency car service work, $231,000 and $338,000.

Pension Board Cut Too—The estimate for the Railroad Retirement Board's administrative expenses under the Railroad Retirement Act totals $2,228,000, a decrease of $298,750 under the fiscal 1945 appropriations totaling $2,526,750. The estimate is built up as follows: Salaries, $1,700,000, decrease of $308,000; miscellaneous expenses, $435,000, decrease of $25,500; printing and binding, $33,000; increase of $2,500; cost of handling penalty mail, $60,000, increase of $32,250. The

(*Continued on page 168*)

Supreme Court Hears Georgia Case Argued

Counsel discuss jurisdiction of courts, background of "conspiracy" claim

If the state of Georgia should be granted injunctive relief by the Supreme Court upon its complaint of damage suffered from a rate-making "conspiracy" by 20 railroads, the whole structure of interrelated rates would be "thrown awry" without any action by the Interstate Commerce Commission, "and the principle of a centralized agency controlling would be wrecked," John Dickinson, general counsel of the Pennsylvania, informed the court January 2, when it heard oral argument on its rule to show cause why it should not take original jurisdiction of the state's complaint. Essential points of the complaint which the state seeks to have the court consider without first taking the matter to the lower cours, and arguments set forth in briefs of railway counsel, were noted in *Railway Age* of December 16, 1944, page 934, while the views of the Department of Justice, appearing in the role of *amicus Curiae*, were noted in the issue of January 6, page 124. The carrier's argument was presented to the court by Mr. Dickinson, speaking for 10 defendant roads (grouped as the "northern" lines), George S. Leisure, acting for the Chesapeake & Ohio and Nickel Plate, and Sidney S. Alderman, general solicitor of the Southern, representing 8 roads in the South. The governor of Georgia, Ellis Arnall, argued the state's contentions, with Arne C. Wiprud of the anti-trust division of the Attorney General's office at his elbow.

Precedents Cited—In the course of his argument Mr. Dickinson pointed out that the court, in the *Central Transfer Co.* vs. *Terminal Railroad* case, in which an anti-trust law violation was alleged, had ruled that an injunction could not lie because, while the commission had no direct jurisdiction over the agreement there involved (just as it has no jurisdiction over rate bureaus), nevertheless, "the agreement attacked under the anti-trust laws could only operate through the filing of tariffs and other things under the direct jurisdiction of the commission." This finding, he said, was related to section 16 of the Clayton Act, providing that "an injunction under the anti-trust laws may not be granted with regard to matters subject to the jurisdiction of the Interstate Commerce Commission except at the suit of the United States." In the *Keogh* vs. *Chicago & North Western* case, he said further, the court had found against a shipper claiming relief from "conference method" rates on the basis of alleged anti-trust law violations. "Surely if Georgia may recover here, he could have there."

Mr. Leisure discussed the common law angles of the alleged conspiracy, citing cases to show that the Interstate Commerce Act, by conferring on the commission exclusive jurisdiction to determine the fairness and reasonableness of rates, had "destroyed the right of the shipper to recover damages or to secure an injunction at least prior to determination by the commission."

D. J. Not I. C. C.'s Friend—"We can but express surprise that the Department of Justice is here as a friend of the court but hardly as a friend of the commission," said Mr. Alderman in the course of his argument. "Georgia thinks it is time for a change in the middle of the stream; while pursuing her administrative remedies, she comes in with this original suit theory. She must be discontented with the administrative remedies," he asserted. "Asking the court to enjoin the conspiracy is asking the court to put on judicial blinders so it cannot see the Interstate Commerce Act."

Apart from the various legal grounds developed by the carriers' counsel in support of their contention that the Supreme Court should not take original jurisdiction in the Georgia complaint, Mr. Alderman continued, leave to file the complaint should be denied "in the exercise of a sound discretion" in order to protect the court from "abuse" of its original jurisdiction, since 47 other states might follow Georgia with similar claims, and 48 states could come direct to the original and not appellate jurisdiction of the court after each subsequent I. C. C. decision, with this precedent.

Governor Arnall outlined a contrary interpretation of some of the court findings and statutes to which the railroads' counsel had referred, but his chief argument followed the lines of the complaint and the state's brief, that the commission has no power to deal with anti-trust law violations, but is restricted to findings of reasonableness and non-discriminatory nature. Since the commission has no such power, there is no place except the courts for the state to seek relief from "conspiracy," he said. The Supreme Court, "in one short-haul," can give "universal" relief from "collusive" rates without any multiplicity of suits, he declared.

The Governor Is Questioned—Joint rates entered into between two carriers are all right, the governor indicated, if neither is "coerced." The southern roads wish to file lower tariffs, he asserted, "but the northern roads say no, and if you do, we will divert traffic from your roads." When Justice Roberts remarked that such a situation would constitute a justiciable case before the commission, Governor Arnall complained that the "southern roads don't make it known." Justice Frankfurter commented that the southern roads ought to be on Georgia's side in this controversy, but the governor replied, "You can't tell whose side they're on."

The governor was subjected to considerable questioning by the justices. Justice Roberts remarked that the court's original jurisdiction is not "obligatory" and that to be a conspiracy joint action "must have a bad purpose. My difficulty is finding badness in the conspiracy." Justice Jackson brought up the question of the relative celerity of the Supreme Court and lower courts in handling cases, and of the former's handling original and appellate cases, thus in effect countering the governor's assertion that one reason for coming direct to the Supreme Court in this instance was the desire to get speedy relief.

New Loading Forecast from I. C. C. Bureau

Indicates carload loadings will be off 3.8 per cent for first half

The Bureau of Transport Economics and Statistics of the Interstate Commerce Commission is trying its hand at estimating carload freight loadings six months in advance, the estimate for this year's first half being set up "as an experiment to test the possible accuracy" of the projections "and, consequently, the desirability of continuing them." The January-through-June estimate, presented in the latest issue of the Bureau's "Monthly Comment on Transportation Statistics," indicates that loadings of that period will be 3.8 per cent below the loadings of carload freight in the first half of last year.

L.c.l. Should Stay High—While no estimate is made for merchandise l. c. l., the Bureau notes that these loadings "have been above those of the corresponding month of the previous year for some time," and it hazards the guess that "probably this traffic will not fall below 1944 levels during the first half of 1945." The carload forecast, the statement explains, will be revised from month to month on the basis of actual loadings reported by the Association of American Railroads, and the monthly freight traffic flow estimates reported to the Office of Defense Transportation by "a small sample of shippers." Each month the Bureau will add another month to give a continuous running forecast.

As now set up the estimate shows anticipated declines in average weekly loadings for all six months, the range being from 6.3 per cent for January to 1.4 per cent for March. January, 1945, includes and January, 1944, excludes New Year's Day. Next to January, the largest relative decline in average weekly loadings is predicted for April—5.2 per cent. February's drop is expected to be 3.5 per cent; May's, 3.8 per cent; and June's, 3.3 per cent. Total carload loadings for the six months are put at 17,902,890, compared with 18,608,080 in last year's first half.

Traffic Easing Up—Meanwhile the Bureau made its usual comment on latest figures showing railroad operating results, pointing out that November, 1944, freight revenues were 3.4 per cent above those of November, 1943, and that the freight revenue index was 225.3, "higher than for any of the first six months of the year but approximately the same as June." Nevertheless, the index table shows that the November figure was the lowest since June, the July-October range being from 227.5 to 235.5. The index, like that of passenger revenue, is based on the 1935-1939 monthly average as 100.

November passenger revenues were down 1.2 per cent from November, 1943, and the index at 413.9 was "the lowest since January." It compares with October's 417.9, and June-September figures ranging from 451.3 to 470.8.

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11 Mos. Net Income Was $627,000,000

Net railway operating income for same period was $1,035,410,270

Class I railroads in November had an estimated net income, after interest and rentals, of $63,900,000 compared with $63,347,988 in November, 1943, according to the Bureau of Railway Economics of the Association of American Railroads. In the first eleven months of 1944, they had estimated net income of $627,000,000 compared with $838,877,492 in the corresponding period of 1943.

November's net railway operating income, before interest and rentals, was $91,578,941 compared with $94,179,007 in November, 1943, making this the 18th consecutive month in which the net earnings of the carriers showed a decline. The eleven months net railway operating income was $1,035,410,270 compared with $1,290,046,349 in the same period of 1943.

In the 12 months ended November 30, 1944, the rate of return averaged 4.02 per cent compared with 5.42 per cent for the 12 months ended November 30, 1943.

Operating revenues for November totaled $780,672,489 compared with $761,993,806 in November, 1943, while operating expenses totaled $524,449,672 compared with $502,191,518. The 11 months gross totaled $8,679,932,140 compared with $8,272,347,276 in the same period of 1943, or an increase of 4.93 per cent. Operating expenses in the first 11 months amounted to $5,726,193,980 compared with $5,057,982,983, an increase of 13.21 per cent.

Class I roads in the 11 months paid $1,732,631,860 in taxes compared with $1,749,594,542 in the same period of 1943. For November alone, the tax bill amounted to $147,214,549, a decrease of $3,512,554 or 2.33 per cent under November, 1943. Thirteen Class I roads failed to earn interest and rentals in the 11 months, of which nine were in the Eastern district, one in the Southern region, and three in the Western district.

Class I roads in the Eastern district in the 11 months had an estimated net income of $262,000,000 compared with $340,985,897 in the same period of 1943. For November alone, their estimated net income was $22,200,000 compared with $20,768,679 in November, 1943.

The 11 months net railway operating income in the Eastern district was $436,582,022 compared with $526,085,984 in the same period of 1943. In November it was $36,460,932 compared with $32,406,284 in November, 1943.

Gross in the Eastern district in the 11 months totaled $3,770,042,197, an increase of 3.55 per cent compared with the same period in 1943, while operating expenses totaled $2,639,526,346, an increase of 11.85 per cent.

Class I roads in the Southern region in the 11 months had an estimated net income of $94,000,000 compared with $128,140,759 in the same period of 1943. For November alone, they had an estimated net income of $8,200,000 compared with $10,831,397 in November, 1943.

The Southern region's 11 months net railway operating income was $151,625,014 compared with $187,186,703 in the same period of 1943. Its November net railway operating income amounted to $12,638,515 compared with $15,308,721 in November, 1943.

Gross in the Southern region in the 11 months totaled $1,223,101,289, an increase of 3.66 per cent compared with the same period of 1943, while operating expenses totaled $765,908,099 or an increase of 13.57 per cent.

Class I roads in the Western district in the 11 months had an estimated net income of $271,000,000 compared with $369,750,836 in the same period of 1943. For November alone they had an estimated net income of $33,500,000 compared with $31,747,912 in November, 1943.

Those same roads in the 11 months had a net railway operating income of $447,203,234 compared with $576,773,662 in the same period of 1943. Their November net railway operating income amounted to $42,479,494 compared with $46,464,002 in November, 1943.

Gross in the Western district in the 11 months totaled $3,686,788,663, an increase of 6.82 per cent compared with the same period in 1943, while operating expenses totaled $2,320,759,535, an increase of 14.68 per cent.

Class I Railroads—United States

Month of November	1944	1943
Total operating revenues	$780,672,489	$761,993,806
Total operating expenses	524,449,672	502,191,518
Operating ratio—per cent	67.18	65.90
Taxes	147,214,549	150,727,103
Net railway operating income (Earnings before charges)	91,578,941	94,179,007
Net income, after charges (estimated)	63,900,000	63,347,988
Eleven Months Ended November 30, 1944		
Total operating revenues	$8,679,932,149	$8,272,347,276
Total operating expenses	5,726,193,980	5,057,982,983
Operating ratio—per cent	65.97	61.14
Taxes	1,732,631,860	1,749,594,542
Net railway operating income (Earnings before charges)	1,035,410,270	1,290,046,349
Net income, after charges (estimated)	627,000,000	838,877,492

Depreciation Reserves Must Go on Asset Side

The Interstate Commerce Commission has made public a January 1 order denying the railroads' petition for reconsideration of the commission's September 21, 1944, order requiring the transfer of depreciation reserves from the liability side of the balance sheet to the asset side as a deduction from the property accounts. The transfer thus became effective as of January 1.

As noted in the *Railway Age* of December 2, 1944, page 864, the railroad petition for reconsideration took the form of a letter which E. H. Bunnell, vice-president of the Association of American Railroads, wrote to Commissioner Mahaffie as chairman of Division 1 of the commission.

Private Car Lines Report for 1943

Grossed $206 million and had $139 million expense on $209 million invested

Private car lines reporting to the Interstate Commerce Commission for the year ended December 31, 1943, had for that year total operating revenues of $206,038,621, of which $193,607,483 was reported by the 29 companies owning 1,000 cars or more. The year's operating expenses totaled $139,263,806, of which the 29 large operators reported $130,894,493.

These and other data compiled from annual reports of 103 private car line operators are shown in a compilation of selected statistics prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The compilation for the calendar year 1943, recently made available, appears in Statement No. 4444, and is the second of its kind. The first annual summary of such statistics, covering the year 1942, was reviewed in *Railway Age* of February 26, 1944, page 431.

Investment Heavily Depreciated—The total revenue figure for 1943 is made up of the following items: Car service (mileage allowances and rents), $181,374,674; refrigerator service, $22,637,299; heater service, $766,538; other service, $672,702; and incidental revenue, $587,408. In every category except the last there was an increase over the corresponding 1942 figure. The net investment in transportation property of the reporting lines at the end of 1943 was $209,776,405, a decline from the 1942 net of $233,361,972. This 1943 total was arrived at by deducting a $393,821,592 reserve for depreciation from a book investment total of $603,597,997.

The book value of property investments in 1943 consisted of $322,547,747 in 111,524 refrigerator cars; $234,337,317 in 123,334 petroleum tank cars; $23,667,156 in 8,084 other tank cars; $5,802,393 in 4,577 stock cars; and $17,243,384 in 9,552 other cars. In addition to the 257,071 cars thus accounted for, there were 11,037 cars owned by operators owning 10 but less than 100 cars, according to quarterly reports filed at the end of 1943 by the 155 owners in this group. Annual reports are not required from operators in this group, and the general statistics previously stated do not include them. In addition, the commission has exempted owners of less than 10 cars from making either quarterly or annual reports, so their operations likewise are not reflected in the totals reported for the year. The exclusion of these car owners, however, the bureau pointed out, "does not significantly affect the statistics."

The "Big Four"—The largest private car operator in 1943 on the basis of investment, operating revenue, and number of cars owned, was the General American Transportation Corporation. This operator reported 55,855 cars owned at the end of the year, as compared to 57,336 at the

(*Continued on page 169*)

Socialism Seen Aim of Anti-Trust Suit

Transport Assn. calls on Congress to save private enterprise

The anti-trust statute is being used as a device to disintegrate the transportation industry of the country, and as an opening wedge toward socialization. This charge is made by the Transportation Association of America in its annual report to the public, released on January 8.

The Association contends that this accusation is sustained by speeches made by the outgoing vice-president, Henry Wallace, by Attorney General Biddle, and by Assistant Attorney General Berge in a series of speeches prior to the filing of the anti-railroad suit at Lincoln, Neb.

Regulation by Whim—The suit against the railroads, the Association further charges, attacks rate-making and service practices which "have existed for 40 years" and is intended to "clinch the regimentation of American enterprise through the substitution of control by consent decree and court order, for orderly regulation."

The Association goes on to assert that success of the anti-trust suit would result in attrition of private capital invested in transportation, or in a constant increase in rates to offset the consequences of destructive competition. "It is safe to say that no move could be better calculated to force large segments of these common carriers into bankruptcy from which the only refuge would be government ownership."

Congress Should Act—The Association recommends that Congress undertake "a complete economic reappraisal of national transportation policy in view of changing conditions of the past 25 years."

Equality of regulation among carriers is not possible under present conditions, the Association points out, because water carriers, trucks, and air lines use facilities furnished at the taxpayers' expense for which outlays they compensate only in part; whereas the railroads have to rely upon private investment which will not be forthcoming unless it promises to be remunerative. Continuing, the statement says:

Railroads Should Spend 8½ Billions—"It is our considered opinion that over $850,000,000 per year, for perhaps a decade, should be spent by the railroad industry in the rehabilitation and modernization of its existing plant. A substantial proportion of this sum will be devoted to right-of-way and terminals. *The railroads must secure such capital from private investors.* If this is not possible and they are forced to again appeal to government, the recommendation of the National Resources Planning Board may become a serious threat to private ownership. That Board proposed that the benefits of government expenditures be spread over all forms of transport through the purchases of railway rights-of-way and terminals, making them a part of the public domain. There would be no retreat from such a step toward government ownership.

"Too much reliance should not be placed on the lasting effect of railway debt reduction which has been made possible as the result of the transitory high wartime earnings. The trend in this direction is very encouraging. But, such improvement in capital structures could be offset in a very few years unless supported by an adequte volume of traffic. Present national policy prohibits (with minor exceptions) the *only wholly privately-owned instrumentality* from utilizing those facilities which most economically and efficiently can handle a substantial proportion of the total traffic.

"The declared policy of Congress—set forth as a preamble to the Transportation Act of 1940—emphasizes the paramount need for *co-ordination*. But, regulation thereunder operates to the contrary, both from physical and financial viewpoints."

Common Carriers Must Be Preserved—The "fundamental issue" says the Association is that "Congress must consider the kind of regulation which will, as nearly as practicable, place common carriers on a basis of competitive equality with private carriers. . . . The only sound economic approach to this issue is for Congress to provide a standard and character of regulation under which a common carrier may offer the type of service, at a basis of rates, which will make it unnecessary for the shipper to go into the transportation business on his own account."

Countering charges of "monopoly" hurled at the Association's proposal that railroads be permitted to engage in other forms of transportation, the statement points out that its proposal called for *competing* companies providing all forms of transportation; and that, anyhow, no common carrier can monopolize transportation so long as private carriers are free to enter the business. The "monopoly" cry, it is said, has been uttered by those who wish to play upon public opinion in a manner to prevent others from sharing in their enjoyment of government spending upon transportation.

How Shippers Are Injured—How the present situation is operating to the shippers' disadvantage is indicated by the citation of a petition to the I. C. C. by common carrier truckers, praying that railroad rates on l. c. l. be arbitrarily increased, solely so that these truckers might enjoy a larger share of the business—the shipping public, of course, footing the bill.

The Association reaffirms its belief that all common carriers should be regulated by a single federal agency, and cites the activities of the Civil Aeronautics Board to support its opinion that regulators of only a segment of transportation tend to act as advocates rather than as policemen.

Not Dominated by RRs—The report lists the names of the board of directors and governors of the Association. Out of a total of 40, not one is an officer of a railroad, and only four are connected with organizations directly affiliated with the railroads (i. e., the A. A. R., the Short Line Association, the Pullman Company, and the Express Agency). The remainder are officers of companies which are large buyers of transportation service—manufacturers, financial firms, mail order houses, utilities, shippers, and water carriers.

New Congress Gets Several Old Bills

Measures which died with last month's adjournment are reintroduced

The seventy-ninth Congress convened for its initial session last week, and it has since been swamped with the usual flood of bills which comes to a new Congress. As was to be expected, the great majority are old bills being reintroduced, for all measures pending before the seventy-eighth Congress at various stages short of final enactment died with the sine die adjournment of December 19, 1944.

Land Grant and Rivers Bills—Among the bills which have thus reappeared is the proposal to repeal remaining provisions of the land-grant-rate law sponsored again by Representative Boren, Democrat of Oklahoma. Also, the half-billion dollar omnibus rivers and harbors bill, put in by Senator Bailey, Democrat of North Carolina, without such controversial projects as the Tennessee-Tombigbee, Beaver-mahoning, and St. Lawrence. Meanwhile, Senator Vandenberg, Republican of Michigan, has proposed to amend the Senate's rules to provide that a point of order may be made against the inclusion in any rivers and harbors bill of "any project in any form not formally recommended to the Congress in an official report of the Board of Engineers for Rivers and Harbors." Another rules change, proposed by Senator McCarran, Democrat of Nevada, would create a new Senate committee on civil aviation and aeronautics.

President Roosevelt sent his annual message to Congress on January 6. While it was mainly a discussion of the war situation, it did refer to the Administration's view that 60,000,000 jobs must be available in the post-war period. "Our full-employment program," the President said, "requires the extensive development of our natural resources and other useful public works. . . . The T. V. A. which was constructed at a cost of $750,000,000—the cost of waging this war for less than four days—was a bargain. We have similar opportunities in other great river basins. . . .

Roads and Airports—"If we are to avail ourselves fully of the benefits of civil aviation, and if we are to use the automobiles we can produce, it will be necessary to construct thousands of airports and to overhaul our entire national highway system. . . ."

Bills of interest to the railroads, together with their sponsors, include the following:

Introduced in House of Representatives

H.R. 3, to restore standard time. (Cannon, Democrat of Missouri).

H.R. 4, to provide for federal aid for the development, construction, improvement, and repair of public airports. (Randolph, Democrat of West Virginia).

H.R. 9, for improvement of the Intercoastal Waterway from Jacksonville, Fla. to Key West. (Cannon, Democrat of Florida).

H.R. 36 and H.R. 37, to amend section 77 of the Bankruptcy Law to restrict the authority of the Interstate Commerce Commission in reducing the capitalization of railroads undergoing reor-

ganization. (Hobbs, Democrat of Alabama).

H.R. 50, to improve the facilities for transcontinental motor transportation; to provide additional facilities for the national defense; to aid in the relief of unemployment; to promote the public safety. . . . (Randolph, Democrat of West Virginia).

H.R. 55, to prohibit interstate common-carrier pipe lines from transporting commodities in which such carriers have any interest. (Izac, Democrat of California).

H.R. 58, authorizing negotiations and providing for the construction, maintenance, and operation of an interoceanic canal over Nicaraguan territory. (Izac, Democrat of California).

H.R. 121, to extend eligibility for benefits under the Railroad Retirement Act of 1937, to individuals who are ineligible only by reason of the time of separation from service. (Hendricks, Democrat of Florida).

H.R. 165, to authorize the appropriation of funds for the development and improvement of devices for the propulsion of aircraft. (Bulwinkle, Democrat of North Carolina).

H.R. 166, to amend section 408 of the Civil Aeronautics Act of 1938, relating to consolidation, mergers, and acquisitions of control. (Bulwinkle, Democrat of North Carolina).

H.R. 167, to amend section 1(4) of the Interstate Commerce Act, to permit joint action by common carriers subject to parts I, II, III, or IV, respectively, in connection with procedures related to the establishment of rates and the taking of other action. (Bulwinkle, Democrat of North Carolina).

H.R. 184, to revise the administrative procedure of federal agencies; to establish the Office of Federal Administrative Procedure; to provide for hearing commissioners; to authorize declaratory ruling by administrative agencies. (Celler, Democrat of New York).

H.R. 194, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Clason, Republican of Massachusetts).

H.R. 287, to provide for federal aid to the states for the development, construction, improvement, and repair of public airports. (Randolph, Democrat of West Virginia).

H.R. 335, to extend pension benefits under the Railroad Retirement Act of 1937 to certain employees for services rendered outside the United States and to increase the amount of pension payable to pensioners under such act. (Shafer, Republican of Michigan).

H.R. 336, to provide that the Railroad Retirement Board may award disability annuities to totally and permanently disabled individuals who have completed a period of service within a reasonable time of 30 years service. (Shafer, Republican of Michigan).

H.R. 339, to improve the administration of justice by prescribing fair administrative procedure. (Smith, Democrat of Virginia).

H.R. 355, to construct the New Jersey intracoastal waterway section of the Atlantic Intracoastal Waterway. (Auchincloss, Republican of New Jersey).

H.R. 369, to provide for a 25 per cent increase in annuities under the Railroad Retirement Act of 1937. (Cannon, Democrat of Florida).

H.R. 401, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Dirksen, Republican of Illinois).

H.R. 413, to amend the Interstate Commerce Act, to provide for the establishment of a uniform classification and uniform scale of Class rates for railroad freight. (Gossett, Democrat of Texas).

H.R. 437, to amend the Railroad Retirement Act of 1937 so as to provide for an annuity for total and permanent disability after 10 years' service. (Kefauver, Democrat of Tennessee).

H.R. 447, relating to through rates in the case of certain property of the United States manufactured or processed in transit. (Kefauver, Democrat of Tennessee.

H.R. 449, relating to the original jurisdiction of district courts of suits or proceedings arising under section 20(11), 20(12), 219, or 413, of the Interstate Commerce Act, and to the removal of such suits and proceedings from state courts. (Kefauver, Democrat of Tennessee).

H.R. 478, to create an independent Civil Aeronautics Authority and an independent Air Safety Board, to promote the development and safety and to provide for the regulation of civil aeronautics, and to promote world leadership by the United States in aviation. (King, Democrat of California).

H.R. 481, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (LaFollette, Republican of Indiana).

H.R. 490, to authorize the undertaking of the initial stage of the comprehensive plan for the conservation, control, and use of the water resources of the Missouri river basin. (Lemke, Republican of North Dakota).

H.R. 508, relating to the exemption from the tax on transportation of property of amounts paid for such transportation by states and political subdivisions thereof. (Maloney, Democrat of Louisiana).

H.R. 523, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Norton, Democrat of New Jersey).

H.R. 532, to amend the Civil Aeronautics Act. (O'Hara, Republican of Minnesota).

H.R. 540, directing the Secretary of Commerce, through the administrator of the Civil Aeronautics Administration, to make a survey of the need for a system of airports throughout the United States. (Randolph, Democrat of West Virginia).

H.R. 671, to provide for the improvement of the Great Lakes-St. Lawrence basin in the interest of national defense. (Pittenger, Republican of Minnesota).

H.R. 674, to amend the Civil Aeronautics Act of 1938. (Lea, Democrat of California).

H.R. 679, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Baldwin, Republican of New York).

H.R. 694, to amend section 321, title III, part II, Transportation Act of 1940, with respect to the movement of government traffic—the land-grant repealer. (Boren, Democrat of Oklahoma).

H.R. 700, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Dawson, Democrat of Illinois).

H.R. 750, to amend the Railroad Retirement Act to provide annuities for individuals who are totally and permanently disabled and have completed 20 years of service. (Pace, Democrat of Georgia).

H.R. 761, to increase the period of limitation on actions against railroad carriers for recovery of overcharges from two to four years. (Peterson, Democrat of Florida).

H.R. 1102, to amend the Railroad Retirement Acts, the Railroad Unemployment Insurance Act, and subchapter B of chapter 9 of the Internal Revenue Code. (Jennings, Republican of Tennessee).

H.R. 1125, to provide for federal aid for the development, construction, improvement, and repair of public airports in the United States. (King, Democrat of California).

H.R. 1206, to prescribe fair standards of administrative procedure. (Walter, Democrat of Pennsylvania).

H.R. 1272, to require the establishment of a classification of freight and a scale of class rates, for application to transportation of property by railroad, so adjusted as not to discriminate among regions or territories in the United States. (Bryson, Democrat of South Carolina).

H.J.Res. 20, on establishing an air policy commission. (Randolph, Democrat of West Virginia).

H.J. Res. 47, providing for payments for the purpose of equalizing as between the different regions of territories of the United States, freight charges for the transportation of defense materials during the existing emergency. (Kefauver, Democrat of Tennessee).

H.Con.Res. 1, to repeal Public Law 403 and reinstate standard time. (Bennett, Republican of Missouri).

H.Con.Res. 2, to terminate the effectiveness of the act of January 20, 1942, which established daylight saving time. (Bradley, Republican of Michigan).

H.Con.Res. 6, to repeal Public Law 403 and reinstate standard time. (Luther A. Johnson, Democrat of Texas).

H.Con.Res. 15, to repeal Public Law 403 and reinstate standard time. (Cole, Republican of Missouri).

H. Con. Res. 17, to establish a joint committee to investigate federal government competition with private business. (Cunningham, Republican of Iowa).

H.Res. 10, authorizing the committee on interstate and foreign commerce to study and investigate matters related to air commerce and air navigation. (Bulwinkle, Democrat of North Carolina).

H.Res. 13, authorizing an investigation by the committee on interstate and foreign commerce of the practice of purchasing tickets for railroad, Pullman, and other transportation for purposes of resale. (Dirksen, Republican of Illinois).

H.Res. 54, authorizing the committee on agriculture to investigate the present system of marketing, transportation, and distribution of farm products. (Flannagan, Democrat of Virginia).

H. Res. 60, authorizing the continuation of the Special Committee on Postwar Economic Policy and Planning. (Colmer, Democrat of Mississippi).

Introduced in Senate

S. 1, to create an independent Civil Aeronautics Authority and an independent Air Safety Board, to promote the development and safety and to provide for the regulation of civil aeronautics, and to promote world leadership by the United States in aviation. (McCarran, Democrat of Nevada).

S. 2, to provide for federal aid for the development, construction, improvement, and repair of public airports in the United States. (McCarran, Democrat of Nevada).

S. 7, to improve the administration of justice by prescribing fair administrative procedure. (McCarran, Democrat of Nevada).

S.Res. 12, to amend the Senate rules with respect to rivers and harbors authorization bills. (Vandenberg, Republican of Michigan).

S.Res. 19 to amend the Senate rules to create a new committee on civil aviation and aeronautics. (McCarran, Democrat of Nevada).

S. 21, to amend the Internal Revenue Code by providing a deferred maintenance deduction for carriers. (McCarran, Democrat of Nevada).

S. 35, authorizing the construction, repair, and preservation of certain public works on rivers and harbors. (Bailey, Democrat of North Carolina).

S. 46, to amend the Locomotive Inspection Act to provide for the appointment of five additional inspectors, and to provide for adjustments in salaries. (Wheeler, Democrat of Montana).

S. 47, to amend the Interstate Commerce Act. (Wheeler, Democrat of Montana).

S. 81, to amend the Interstate Commerce Act to provide for the establishment of a uniform classification and uniform scale of class rates for railroad freight. (Hill, Democrat of Alabama).

S. 82, to supplement the national transportation policy and to aid in achieving such policy. (Hill, Democrat of Alabama).

S. 101, to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry. (Chavez, Democrat of New Mexico, for himself and Downey of California, Wagner of New York, Murray of Montana, Democrats, Capper of Kansas, Langer of North Dakota, Aiken of Vermont, Republicans).

U. P. Waiters Fined

Fines of $250 each were imposed by the District Court at Los Angeles on January 2, upon 103 waiters who were part of a group of 135 employees indicted by a federal grand jury on charges of theft in interstate commerce by withholding money collected on dining cars of the Challengers of the Union Pacific. The waiters, who pleaded guilty, were also given suspended jail sentences. A week before, 20 stewards were fined $500 each and two waiters $250 each on the same charge. On January 2, the theft charge was dismissed against three defendants for lack of evidence.

"Fun on the Train" for New Haven Child Riders

A surprise envelope, containing a 24-page crayon coloring book and a box of eight colored crayons, is being distributed along with their dessert to all children aboard New Haven dining and grill cars. The booklet, entitled "Fun on the Train," first came out during Christmas week, and proved so popular that the railroad reports distribution will be carried on indefinitely.

Prepared by the railroad's advertising department, the booklet contains more than 100 pictures, plus a map showing territory covered by the New Haven. There are scenes commonly viewed from train windows, also various pieces of railroad equipment, any of which can be colored easily by children while the train is in motion. It is said the booklet is suitable for children up to 14 years of age.

President Reappoints Mahaffie and Alldredge to I. C. C.

President Roosevelt on January 3 sent to the Senate his reappointments of Interstate Commerce Commissioners Charles D. Mahaffie and J. Haden Alldredge, and thus the movement to have Commissioner Mahaffie replaced with a new commissioner who would "understand" the South's freight-rate problems appears to have died a-borning.

As noted in the *Railway Age* of December 23, 1944, page 973, the opposition to the reappointment of Commissioner Mahaffie came from members of Congress from the South who were reported to have been in the process of getting together in a movement to support C. E. Childe, former member of the defunct Board of In-

vestigation and Research, for the place. Later on, former B. I. R. Chairman Robert E. Webb was also mentioned.

Having failed to get President Roosevelt to drop Commissioner Mahaffie, the southerners are not now expected to make much, if any, fuss over his confirmation by the Senate. The Senate committee on interstate commerce had scheduled a meeting to consider the nominations on January 8; but the session was postponed pending organization of the committee with a full membership in the new Congress.

Tax Accounting Change

Liabilities of railroads for taxes collected from their employees and others for the account of government taxing agencies will hereafter be shown on carrier balance sheets in Account 761, Miscellaneous Accounts Payable. The change, effective March 1, will result from a December 29, 1944, order of the Interstate Commerce Commission, Division 1.

The taxes involved include income and retirement taxes collected from employees and taxes on amounts paid for freight and passenger service collected from shippers and travelers. These are now included along with a railroad's own tax liability in Account 767, Accrued Tax Liability. Another provision of the order will change the title of the latter to "Taxes Accrued" and give it a new text.

Employment of Women Dropped in Third 1944 Quarter

For the first time since the development of the acute wartime manpower shortage, the number of women employed by Class I railroads showed a decline over the three-month period ended with the middle of October, 1944, according to the latest report of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. This decline in the total number employed, however, was relatively less than the decline in all employees in the same period, with the result that the percentage of women employees to the total of all employees made a further increase.

8.2% of Employees Feminine—The total number of women employed in mid-October, last year, was 115,704, as compared to 116,425 in mid-July and 103,209 in mid-October, 1943. The total of all employees in mid-October, 1944, was 1,410,285, as compared to 1,442,887 in mid-July and 1,367,203 in mid-October, 1943. Therefore the total of women employed was 8.20 per cent of all employees in mid-October, last year, as compared to 8.07 per cent in mid-July and 7.55 per cent in the preceding mid-October.

Reversing the trend shown in recent previous reports, the number of women in train and engine service declined from mid-July to mid-October, the respective figures being 301 and 282. In this group there were in mid-July 6 women in the yard firemen and helper class, but none in mid-October. The number of female road passenger brakemen and flagmen dropped from 67 in mid-July to 43 in mid-October. On the other hand, the number of women who were listed as assistant road passenger conductors and ticket collectors rose from 209 in mid-July to 221 in mid-October.

As compared with mid-October, 1943, there were more women employed by Class I roads in every general division of employment except maintenance of way and structures, where the decline was from 3,027 to 2,402. In mid-July last year 2,746 were reported in this category. Substantial increases were reported in the 12-month period ended in mid-October in two general divisions of employment—professional, clerical and general, where the increase was from 67,694 to 77,819; and transportation other than train, engine and yard, up to 13,135 from 10,468. The other general division in which women are employed in relatively large numbers, that is, maintenance of equipment and stores, showed a slight increase over the comparable 1943 figure in the actual number of women employed, with 21,996 reported against 21,734, but a larger increase in the total number of employees of this category reduced the ratio of female employees to the total, the percentage figures being 5.95 in the 1944 month as compared to 6.15 in mid-October, 1943.

Where to Find the Women—In the so-called white-collar, or clerical and professional, occupations Class I roads reported that 33.78 per cent of all employees last mid-October were women. Occupations represented in this division in which women were employed included claim agents or investigators, traffic agents and inspectors, traveling auditors, ticket agents, sergeants and lieutenants of police, patrolmen and watchmen, and storekeepers and sales agents, as well as the strictly clerical jobs.

In the overall-wearer employment divisions, more women were listed in the coach cleaner category than any other; there were 6,486 in mid-October, a slight decrease from mid-July's 6,526, but an increase on a percentage basis from 45.5 per cent to 46.51. There were 4,840 women, or 5.29 per cent of the total employment in this group, listed in mid-October as skilled trades helpers in the maintenance of equipment and stores division.

In the more or less skilled trades, the number of women employed continued to make up only a small percentage of the total, but some relatively large changes were reported. As compared to mid-July, the number of women signalman and signal maintainer helpers in mid-October had increased from 19 to 25; machinists, from 128 to 148; electrical workers, group A, from 43 to 66; clerk-telegraphers and telephoners, from 1,856 to 2,040; and callers, loaders, scalers, sealers, and perishable-freight inspectors, from 126 to 151.

Prof. H. F. Moore, U. of Ill., Rail Investigator, Retires

Herbert F. Moore, research professor of engineering materials, University of Illinois, Urbana, Ill., and a long-standing collaborator with the Association of American Railroads and its Engineering division in several investigations of railroad rails, has retired from active service on the faculty of the University, and has given up his rail investigation work. In his retirement, Professor Moore has been given the title of Professor of Engineering Materials Emeritus, and he will continue at the University carrying on special work in the field of fatigue of metals.

Outstanding in the work of Professor Moore as related to the railways has been his direction of the Transverse Fissure Investigation conducted by the Engineering Experiment Station of the University in cooperation with the A. A. R. and the Rail Manufacturers' Technical Committee—an investigation which led to the discovery of the cause of transverse fissures in rails and means for eliminating this cause through controlled cooling of the rails during the process of their manufacture.

General administration of the Rails Investigation in the future will be handled by Professor F. B. Seely, head of the department of Theoretical and Applied Mechanics of the University, with the actual technical work in this and allied investigations, as in the past, being conducted by R. E. Cramer and N. J. Alleman, special research associate professors of engineering materials, and R. S. Jensen, special research associate of engineering materials.

Wouldn't Make Roads Pay Army for "Volunteer" Port Work

Findings adverse to the Army point of view have been recommended to the Interstate Commerce Commission by Examiner William A. Disque in a proposed report on one of the Army's complaints against the refusal of railroads to grant it allowances for wharfage and handling of freight at piers which it elects to do for itself at the ports. The proposed report in No. 29117 involves the situation at Norfolk, Va., and it recommends dismissal of the complaint.

The Army assailed the rate set-up as unlawful in that some of the railroads serving Norfolk include wharfage in their export rates and provide for the absorption of handling charges. The examiner asserted that it is not the fault of the railroads that the Army does not get as much service at Norfolk as other shippers. "Although," he said, "the Army did not want defendants' men on the [Army] piers and knew they could not perform the handling services according to the requirements of the situation, it nevertheless in May, 1943, solely as a gesture to afford a basis for a contemplated formal complaint, made a written demand upon defendants to do this work or pay it an allowance in lieu thereof."

Previously the examiner had noted that the Army's work could not be performed by the railroads "according to their convenience"; and he noted later on that the Army could not require the railroads to hire it, for it could have its traffic wharved and handled at railroad expense if it were willing to accept the service provided on railroad piers. In electing to operate its own piers, it is in the role of volunteer, and, as the examiner put it, "the volunteer gets no pay."

Having thus disposed of the allowance demand, the examiner proceeded to a consideration of that other phase of the Army complaint which asked that the railroads be required to publish separately the wharfage and handling portions of their rates to Norfolk, i.e., that the present rates to the

port be reduced by four cents per 100 lb., which amount would be published as the wharfage and handling charges but not collected from the Army. Here, too, the examiner would turn the Army down, basing his adverse recommendation on prior decisions of the commission and on his agreement with the view that separate publication of terminal charges at Norfolk might start a movement for like action at other Atlantic ports, thus disrupting long-standing relationships which have been based on single-factor rates to each port which include all services.

Finally, the examiner would have the commission find that the railroads' refusal to accommodate the Army with a contract rate (i.e., a section 22 quotation) "had the sanction of law and there are no good grounds for affirmative action by this commission."

No A. R. E. A. Annual Meeting

Plans for the annual meeting of the American Railway Engineering Association, which was scheduled to be held in Chicago on March 13-15, have been cancelled. This action has been taken in view of the present situation confronting the railroads and in compliance with a letter received from C. H. Buford, vice-president, operations and maintenance department, Association of American Railroads, requesting the various divisions and sections of the A. A. R. to cancel any plans that may have been made for annual meetings to be held in 1945.

Since it had previously been decided to hold an election of officers whether or not the annual meeting was held, plans are going forward to mail the ballots in the near future. In lieu of the annual meeting the Board of Direction plans to hold a meeting on March 15 to which both the outgoing and the incoming officers will be invited. Preliminary to this meeting it is expected that a special committee of the Board of Direction will be appointed to review the committee reports in preparation for submitting to the membership by letter ballot any proposals for changes in the Manual. The reports and letter-ballot decisions, together with such written discussions of the reports as may have been received, will then be published in the proceedings of the association for distribution to the members as in past years.

With reference to the election of officers, the following names will appear on the ballot that is to be mailed shortly to the members of the association:

President, A. A. Miller, chief engineer maintenance of way and structures, Missouri Pacific.

Vice-President, C. J. Geyer, general manager, Chesapeake & Ohio.

Directors (three to be elected), F. E. Bates, chief engineer, Missouri Pacific; G. A. Haggander, assistant chief engineer, Burlington; W. M. Wilson, research professor of structural engineering, University of Illinois; H. Austill, chief engineer, Terminal Railroad Association of St. Louis; L. P. Kimball, engineer of buildings, Baltimore & Ohio; L. L. Adams, assistant chief engineer, Louisville & Nashville; R. E. Dougherty, vice-president, New York Central; R. L. Schmid, chief engineer, Nashville, Chattanooga & St. Louis; and E. E. Oviatt, chief engineer, New York, New Haven & Hartford.

Nominating committee (five to be elected), Edward Wise, Jr., engineer maintenance of way, Louisville & Nashville; J. S. McBride, chief engineer, Chicago & Eastern Illinois; F. J. Bishop, engineer maintenance of way, Toledo Terminal; W. G. Nusz, office engineer, Illinois Central; H. L. Restall, valuation engineer, Boston & Maine; R. J. Gammie, chief engineer, Texas & Pacific; F. S. Hewes, office engineer, Atchison, Topeka & Santa Fe; H. F. Burch, assistant general manager, Delaware & Hudson; H. F. King, special engineer, Erie; and A. B. Stone, assistant chief engineer, Norfolk & Western.

In addition to the above names to be ballotted upon, J. B. Akers, assistant chief engineer, Southern, Washington, D. C., will be advanced automatically to the position of senior vice-president.

Freight Car Loading

Loadings of revenue freight for the week ended January 6 totaled 682,967 cars, the Association of American Railroads announced on January 11. This was an increase of 98,210 cars, or 16.8 per cent above the preceding week (which included the New Year holiday), a decrease of 86,662 cars, or 11.3 per cent below the corresponding week last year, and a decrease of 34,209, or 4.8 per cent below the comparable 1943 week.

Loading of revenue freight for the week ended December 30 totaled 584,757 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For the Week Ended Saturday, December 30 District	1944	1943	1942
Eastern	114,302	126,779	125,685
Allegheny	128,298	144,350	133,935
Pocahontas	33,721	46,455	41,386
Southern	85,757	97,479	94,749
Northwestern	66,857	70,479	68,587
Central Western	97,979	99,503	97,930
Southwestern	57,843	58,399	58,901
Total Western Districts	222,679	228,381	225,418
Total All Roads	584,757	643,444	621,173
Commodities			
Grain and grain products	36,087	40,689	39,921
Live stock	10,411	11,592	11,610
Coal	115,730	147,221	133,981
Coke	13,045	15,283	14,443
Forest products	21,430	29,788	26,341
Ore	8,923	11,810	13,557
Merchandise l.c.l.	83,430	88,248	75,657
Miscellaneous	295,701	298,813	305,663
December 30	584,757	643,444	621,173
December 23	762,449	641,036	591,471
December 16	749,883	758,881	743,061
December 9	793,554	823,311	744,183
December 2	808,260	862,733	759,731
Cumulative Totals, 53 Weeks	43,441,266	42,439,951	42,771,102

In Canada—Carloadings for the week ended December 30 totaled 44,898, as compared with 62,724 for the previous week and 49,108 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada	Total Cars Loaded	Total Cars Rec'd from Connections
Dec. 30, 1944	44,898	30,382
Dec. 23, 1944	62,724	34,834
Dec. 16, 1944	67,474	36,833
Jan. 1, 1944	49,108	34,501
Cumulative Totals for Canada		
Dec. 30, 1944	3,650,721	1,989,521
Jan. 1, 1944	3,457,996	2,080,588
Jan. 2, 1943	3,369,639	1,763,234

Mid-West Board Meeting

Bad weather with heavy snowfall and low temperatures has militated against transportation, delaying the transportation program in the East as much as 10 days, according to reports made at the annual meeting of the Mid-West Shippers Advisory Board at Chicago on January 5. Weather this year has been more severe than that in any of the three previous war years and, if the usual cycle occurs, continued unfavorable weather will prevail during the remainder of the winter. Snow and cold weather have prevailed throughout the northern states but the effect has been most noticeable in the East and Northwest. As a result, it has been difficult for the railroads in these territories to return cars to the middle-west.

All officers were re-elected including: General chairman, Irving M. Peters, traffic manager of the Corn Products Refining Co., Chicago; alternate general chairman, A. H. Schwietert, traffic director of the Chicago Association of Commerce, Chicago; and general secretary, Clayton F. Devine, traffic director of the Silica Sand Traffic Association of Illinois, Chicago.

The demand for war transportation is greater now than it has been due to extended operations in the Pacific and reverses in Europe, and although ton-miles in 1945 will not exceed those of 1944, about 740,000,000, the railroads will continue to be under a strain, L. M. Betts, manager of the Railroad Relations Section of the Association of American Railroads, told the meeting. He said that the equipment situation would be slightly better with 48,000 freight cars being on order and about 900 locomotives having been built in 1944 but that the manpower shortage is bad and may get worse.

The seriousness of the man-power situation was also stressed by L. R. Capron, vice-president of the Chicago, Burlington & Quincy, who said that no relief is in sight and that conditions will probably get worse. The delay to freight in terminals due to lack of help has been so serious, he said, that General Gross wired the President that the situation must be corrected at once regardless of labor, weather or other unfavorable conditions.

To show how railroads and their employees in general have striven to meet the labor shortage, Mr. Capron described how the Burlington has established off-line recruiting offices and how the employees have worked overtime in order to provide necessary transportation. During the first 10 days of December, he said, the Burlington was consistently short of from 45 to 55 switchmen in its Chicago yards and 45 switchmen doubled and worked 1,371 hours of overtime.

The remarks of F. G. Gurley, president of the Atchison, Topeka & Santa Fe, who was the speaker at a joint luncheon of the Traffic Club of Chicago and the Mid-West Board, are reported in detail elsewhere in this issue.

Don't Use High Class Cars for Contaminating Commodities

"Under prevailing conditions of tight box car supply, and particularly the restricted number of cars available for high class loading, the use of high class cars for contaminating commodities is inexcusable," said L. M. Betts, manager of the Railroad Relations Section, Car Service Dvision, in a recent circular addressed to railroad transportation officers.

The Car Service Division, Mr. Betts reported, continues to discover "all too frequently cases where indifferent supervision, lack of instructions or carelessness

in general has resulted in the contamination of cars otherwise suitable for the loading of food products and other high class commodities." He thus emphasized to the transportation officers the importance of "again reviewing the situation at all points . . . where contaminating commodities of any kind are loaded to insure that proper supervision will be exercised to prevent the degradation of high class box cars by improper loading."

Last Year's Carloadings

Loading of revenue freight on the railroads of the United States in 1944 totaled 43,441,266 cars, according to complete reports for the year as announced by the Association of American Railroads. This was an increase of 1,001,315 cars or 2.4 per cent above the preceding year.

Total loadings by commodities in 1944 compared with 1943 follow:

	1944	1943	Per Cent Increase	Per Cent Decrease
Grain and grain products	2,521,262	2,648,308		4.8
Live Stock	892,114	837,777	6.5	..
Coal	8,937,856	8,507,036	5.1	..
Coke	750,825	751,687	..	.1
Forest Products	2,271,993	2,228,907	1.9	..
Ore	2,648,892	2,815,572	..	5.9
Merchandise, L.C.L.	5,423,033	5,079,720	6.8	..
Miscellaneous	19,995,291	19,570,944	2.2	..
Total	43,441,266	42,439,951	2.4	..

High Speed on a Curve Caused "Challenger" Derailment

The derailment November 8 near Colfax, Calif., of the first section of the Southern Pacific's westbound "San Francisco Challenger" was caused by "excessive speed on a sharp curve," according to the report of the Interstate Commerce Commission by Commissioner Patterson. Eight passengers, including some members of the armed forces, and the engineer were killed, and 194 passengers were included among the 206 injured.

The scene of the accident is in the Sierra Nevada mountains about 51 miles east of Sacramento on the double-track main line of the so-called Overland Route from Ogden, Utah, to Oakland. The track structure consisted of 131-lb. rail, fully tieplated, double-spiked, provided with 8 rail anchors per rail length, laid on 24 treated ties per rail length, and ballasted with crushed stone. The derailment occurred on a 10-deg. curve to the left (for westbound trains), where the superelevation was 4 in. Speed limit signs were placed at points 65.3 miles east and 28.2 miles west of the point of the accident, and special timetable instructions established throughout the intervening distance a maximum authorized speed, for the train involved, of 35 m. p. h. on tangents and 30 m. p. h. on curves.

Had Made Up Time—The accident occurred at 5:10 a. m. in clear weather. The train consisted of one 4-8-8-2 type cab-in-front locomotive, of 514,800 lb. weight on drivers, and 18 passenger cars of steel construction in the order named: 2 baggage cars, 9 coaches, 1 diner, and 6 coaches. This train had departed from Sparks, Nev., 103 miles east of Colfax, 22 min. late, and from Colfax, 2.55 miles east of the point of derailment, 19 min. late. The track was of variable descending grade, ranging up to 1.655 per cent, west of Colfax, but was level for 0.18 mile just east of the point of derailment.

The engine and the first 10 cars were derailed. The engine stopped on its right side, north of the track and practically parallel to it, with the front end 234 ft. west of the point where it left the rails. The tender, which became separated from the engine, and the first 5 cars stopped north of the track, the sixth to eighth cars stopped in various positions across the track, and the ninth and tenth stopped upright on the roadbed and in line with the track. The engine and tender were considerably damaged, and the first 8 cars were badly damaged.

No Mechanical Defects—The train had just traversed a 9-deg. curve to the right before it entered the curve on which it was derailed. As the train was approaching this point the train crew were at various locations throughout the train and were not aware of anything being wrong. The cars had been riding smoothly, and they were unable to estimate its speed, or to say when, or if, the brakes were applied. The fireman had been operating the injector, but was of the impression that the engineer moved the brake valve to emergency position as the engine was overturning. As the engineer was killed in the accident, there was no evidence as to why he failed to control the speed of the train as required by rule. The surface, alinement and gage of the track were well maintained, the report said, and no defective condition of the engine, dragging equipment, or obstruction on the track was indicated. The brakes had been operating properly, and there was no condition found after the accident that would have prevented their proper application.

The overturning speed of this locomotive at the point of derailment was said to be 57.35 m. p. h. "It is evident," the report said, "that the train was moving at overturning speed, as the engine overturned to the outside of the curve without marking the rails, and slid on its right side to the point where it stopped."

Bureau of Budget Will Probe Army Freight Payments

Following through from an administrative inquiry which has revealed "instances of excessive freight payments," the Bureau of the Budget plans to undertake a "comprehensive investigation" into transportation charges paid by the War Department. Director Smith of the Bureau has so advised Chairman Wheeler of the Senate committee on interstate commerce in reply to the recent letter wherein the senator cited evidence which convinced him that "someone ought to check up on the rates being charged the government."

As noted in the *Railway Age* of December 23, 1944, page 974, Senator Wheeler's citations were from the testimony given by C. E. Childe, former member of the defunct Board of Investigation and Research, and W. G. Bohnstengel, General Accounting Office senior rate examiner, at last fall's Senate interstate commerce subcommittee hearings on the bill to repeal remaining provisions of the land-grant-rate law.

The "administrative inquiry" referred to by Director Smith was made by members of the Bureau's staff. They looked into the practices of the Army Transportation Corps, while a similar inquiry was made at the Maritime Commission and others are being made in the Navy Department and in the Procurement Division of the Treasury Department. Director Smith told Senator Wheeler that "while the inquiry in the Maritime Commission disclosed no evidence of payment of excessive rates on wartime traffic, the inquiry in the Transportation Corps did reveal instances of excessive freight payments."

For its "comprehensive investigation" of the latter, the Bureau plans to request the assistance of "specialists employed by the Interstate Commerce Commission, because the Bureau does not employ specialists of this character." A report and recommendations based upon the investigation will be furnished to the Senate committee, Director Smith added.

Meanwhile, his letter had listed the following "facts" as revealed by the administrative inquiry:

1. A very large volume of war traffic was shipped before the War Department established a large unit to analyze freight charges.
2. Although the Transportation Corps is empowered to review and approve all War Department freight payments, the Army Air Forces, by general staff decision, negotiates its own transportation arrangements, a situation which led in the past to delays and confusion in freight charge analysis.
3. A backlog of cases requiring review, negotiation, renegotiation, or submission to regulatory bodies developed. The backlog led to a strengthening of the division performing freight charge analysis, and the backlog is being reduced. The Transportation Corps reports that rate adjustment recoveries during 1941 and 1942 were approximately $40,000,000; recoveries during 1943 were $14,150,000; and recoveries for the period January 1-November 30, 1944, were $14,137,000. The recoveries are expressed on an annual basis, but the beneficial effects of the reduced rates will continue throughout the war.
4. The Transportation Corps does not check all of the 30,000 bills of lading which it receives daily. All bills which the Corps has prior reason to examine are abstracted daily. In addition, about one-sixth of the daily receipt of 30,000 bills of lading is random sampled and checked for classification and rate reasonableness. The sample is made by area and by type of carrier.
5. Part of the difficulty of analyzing freight charges is the inability of the Transportation Corps to secure and to retain competent personnel in the technical field of classification and rate analysis. All of the personnel in the Transportation Corps presently analyzing freight charges was, of necessity, recruited from railroads, trucking concerns, and regulatory bodies. The Corps is now faced with the prospect of drafting personnel, if additional specialists are required, because private transportation sources are equally short of manpower.

C. & E. I. Adopts Trademark

A new emblem has been adopted as the trademark of the Chicago & Eastern Illinois, and is being painted on all rolling stock. For the first time in the history of the C. & E. I., the emblem appears on the cabs of locomotives in color, the orange and blue of the University of Illinois. An-

other innovation is on locomotive tenders where the engine number replaces the trademark.

The new trademark consists of the letters "C. & E. I." centered in a 3 ft.-high oval with the word "Speed" over the initials and the word "Service" beneath them. A streamlined bar, breaking through the oval, carries the slogan "The Chicago Line."

November Accident Statistics

The Interstate Commerce Commission on January 8 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for November and 1944's first eleven months. The compilation, which is subject to revision, follows:

Item	Month of November		11 months ended with November	
	1944	1943	1944	1943
Number of train accidents*	1,307	1,278	14,747	14,721
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	104	105	1,406	1,610
Injured	87	93	1,080	1,271
Passengers on trains:				
(a) In train accidents*				
Killed	12	..	123	131
Injured	263	111	1,678	2,023
(b) In train-service accidents				
Killed	9	4	57	47
Injured	213	200	2,589	2,475
Travelers not on trains:				
Killed	4	1	12	11
Injured	93	93	953	1,009
Employees on duty:				
Killed	66	96	879	903
Injured	3,700	3,783	42,699	41,600
All other nontrespassers:**				
Killed	241	202	1,810	1,758
Injured	673	714	6,111	6,198
Total—All classes of persons:				
Killed	436	408	4,287	4,460
Injured	5,029	4,994	55,110	54,576

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers* were as follows:

Persons:				
Killed	216	184	1,604	1,516
Injured	484	478	3,632	3,691

Fiscal 1946 Budget Is Sent to Congress

(*Continued from page 160*)

estimate for the fiscal 1946 appropriation to the Railroad Retirement Account is $291,913,000, which compares with fiscal 1945's $308,817,000. A table in the budget indicates that the fiscal 1946 appropriation to the Retirement Account will include a government contribution of $35,237,782 (plus interest of $1,189,811) toward the taxes of railroaders who have entered military service.

For the administration of the Railroad Unemployment Insurance Act, the Railroad Retirement Board gets an appropriation equal to 10 per cent of the taxes collected under the act. This is estimated at $11,000,000 for fiscal 1946, as compared with a fiscal 1945 appropriation of $13,300,000. The budget's explanatory statement says that fiscal 1946's unemployment benefits are expected to exceed those of 1945, but the total "will still fall far below pre-war experience." It adds that "the railroad unemployment insurance trust fund is in a very strong position to meet any demands made upon it."

Less for Mediation Board—The estimate for the National Mediation Board totals $591,475, including $269,900 for the National Railroad Adjustment Board. This is a decrease of $30,642 under the fiscal 1945 appropriations of $622,117. Decreases of $15,000 (from $115,000 to $100,000) in the amount provided for arbitration and emergency boards, and of $19,600 in the amount provided for Adjustment Board salaries and expenses more than offset increases of $3,900 and $58, respectively, in the items covering N. M. B. salaries and expenses and the cost of handling penalty mail.

There is, of course, no estimate for the Board of Investigation and Research created by the Transportation Act of 1940, which died on schedule last September 18. However, the budget does include a table showing B. I. R. expenditures for fiscal 1944 and the two and one-half months of fiscal 1945 in which it operated. This table indicates that the board finally wound up with an unexpended balance of $2,906.

Billions for Roads and Rivers—Estimates for the Public Roads Administration's highway work are included under the Federal Works Agency and the "General Public Works Program," the total being $88,000,000. This compares with fiscal 1945 appropriations of $99,000,000. Included in the 1946 estimate are $35,000,000 for access roads; $31,000,000 for the Inter-American Highway; $10,000,000 for the "strategic highway network"; $6,000,000 for grade-crossing eliminations; $3,000,000 for federal-aid secondary and feeder roads; $3,000,000 for surveys and plans.

Included in the estimates covering civil functions of the War Department is an item of $41,358,000 for maintenance and improvement of existing rivers and harbors works. This compares with a fiscal 1945 appropriation of $54,124,000.

In his budget message the President noted that actual construction of public works in fiscal 1946 "will continue to be restricted to those projects which contribute to the war effort." At the same time he recommended appropriations for the planning of public works which have been authorized by Congress.

"We must," the President said, "continue to stock up a shelf of meritorious construction and development projects to be undertaken as manpower and material become available. By the end of the current fiscal year, detailed plans will be ready for about 1.5 billion dollars of federal public works, and also will be substantially ready for a billion-dollar program of federal-aid highways, half of this road program to be financed with state funds. Hence, appropriations for 1946 are recommended to make possible the completion of additional plans for highways, flood control, river development, stream pollution control, power transmission, reclamation, hospital, and other construction, as authorized by law. . . .

"The extent to which federal funds are needed to enable states and localities to plan adequately for useful public works is now being reexamined. . . . In addition, programs are being developed for federal loans and guarantees to stimulate private construction after the war. . . ."

November Earnings in Canada

The two principal Canadian railways reported November earnings and expenses as follows:

Canadian National

	1944	Increase
November		
Gross	$36,979,000	$22,000†
Expenses	31,404,000	1,629,000
Operating Net*	$5,575,000	$1,651,000†
11 Months		
Gross	$402,623,000	$1,088,000
Expenses	330,665,000	17,713,000
Operating Net*	$71,958,000	$16,625,000†

† Decrease.

Canadian Pacific

November		
Gross	$27,165,196	$296,296†
Expenses	21,135,118	735,734
Net*	6,030,078	439,438
11 Months		
Gross	$293,278,868	$23,453,905
Expenses	254,869,139	29,238,094
Net*	$38,409,729	$5,784,189†

† Decrease.

* Net as shown in this tabulation for the C. N. R. is equivalent to "Net Operating Revenue" in U. S. accounting terminology, while the net shown for the C. P. R. corresponds to "Net Railway Operating Income" in U. S. terms.

New Loading Forecast from I.C.C. Bureau

(*Continued from page 161*)

With total operating revenues for November, 1944, above November, 1943, by 2.5 per cent, the gross for 12 months periods ending with successive months continued upward. It was $9,462,309,000 for the 12 months ended November 30, 1944, compared with $9,443,631,000 for the 12 months ended with October 31, 1944. For 1944's first 11 months, operating expenses were 13.2 per cent above the comparable 1943 period; but the Bureau calculates that the increase becomes 16.3 per cent if the 1943 figures are adjusted to exclude accruals of $132,878,516 for "possible wage awards." A "partly estimated" figure of $653,445,000 is given for net income after charges for the 12 months ended November 30, 1944.

Fixed Charges Down—The statement includes a tabulation of Class I railway fixed charges, pointing up how they have declined since 1940. The interest charges in the first 10 months of 1944 were $336,778,232 or 14.22 per cent less than the comparable 1940 figure. The Bureau explains that this "substantial reduction was accomplished in various ways, including reorganization, refunding at lower interest rates, and repayment through sinking fund redemption." It adds that "further substantial reduction" as a result of reorganizations is to be anticipated within the next few years. Reference is made to Bureau of Finance figures which show that as of July 31, 1944, the 30 plans of reorganization approved by the commission "called for a reduction in long term debt of $1.47

billion." At the close last year, 11 such plans (most of them for large roads) remained unconsummated.

A look at the latest figures on freight-train performance prompted the Bureau to note how the "extraordinary" showing made by the railroads during the first two years of the war had been topped in the 10 months ended with October, 1944. It also looked into the relationship between maintenance man-hours and gross ton-miles, pointing out that the 1943 figure for maintenance man-hours per million gross ton-miles was higher than 1942's—783 compared to 771, thus checking a decline which had continued since 1939 when the figure was 852. For the first 10 months of 1944, it was 812.

Comparison with Britain—Another table compares the war experience of the United States and British railroads, the British figures being taken from "Statistics Relating to the War Effort of the United Kingdom," a statement presented by Prime Minister Churchill to Parliament in November, 1944. Based on 1935-1938 averages as 100, the figures show that in 1943 the index of U. S. passenger train-miles was 115.6, as compared with a British index of 72.4. The 1943 indices of passengers carried were, respectively, 187.1 and 107.7; freight train-miles, 151.7 and 112.5; tons of freight originated, 167.6 and 110.8; loaded freight car-miles, 180 and 130.9; revenue ton-miles, 233.2 and 146.1; average load per car, 126.3 and 111.5.

The Bureau's analysis of figures on rail production and new rails laid leads it to the conclusion that during the 10-year period from 1934 to 1943, inclusive, the Class I roads used "approximately 71 per cent of the steel rail produced in this country." The percentage for the five-year period ended with 1938 was 76 as compared with 69 for the last five years. The figures show rail production for the 10-year period at 13,173,308 gross tons; and new rails laid in replacement at 9,411,022 gross tons.

Milwaukee Railroader Is Promoted in France

The promotion of former Milwaukee railroader, Lt. Col. Fay L. King, of Sabula, Ia., to the rank of colonel, has been announced by Maj. Gen. Frank S. Ross, chief of transportation, European Theater of Operations. Colonel King, who once was district master mechanic for the C. M. St. P. & P., is now in charge of the equipment division, 2nd Military Railway Service. His present division, topping all "expected records," has repaired and returned to operation over 30,500 pieces of captured enemy cars and locomotives.

Chamber of Commerce of U. S. Cancels Annual Meeting

The Chamber of Commerce of the United States has canceled its 1945 annual meeting which had been scheduled for New York the first week in May. The announcement by President Eric A. Johnston recalled that the chamber held no annual meeting last year, adding that its present action is in conformity with "the spirit" of the recent request from Director James F. Byrnes of the Office of War Mobilization and Reconversion; for the chamber "most certainly does not desire to add now to the burden of the railroads, nor to tax any other facility needed for winning the war."

O. D. T. to Get 8,833 Buses and 19,304 Trailers in 1945

The Office of Defense Transportation announced January 6 that the War Production Board had approved construction during 1945 of 8,833 "integral" buses and 19,304 commercial trailers. The estimated needs for "essential transportation purposes" were 10,000 and 50,000, respectively. The program now approved calls for an output of 6,500 trailers in the first quarter of this year, after which production will be cut to 4,268 per quarter. Bus output also will be cut after the first quarter, dropping to 2,075 in the final quarter from 2,513 in the first three months. In 1944 total production for the O. D T. was 5,150 integral buses and 22,500 trailers.

Private Car Lines Report for 1943

(*Continued from page 162*)

end of 1942. Its net investment in transportation property at the close of 1943 was $54,953,591; its gross operating revenues for the year, $45,137,724; and its total operating expenses, $35,533,921.

While General American was the largest single operator, the largest refrigerator car operator was the Pacific Fruit Express Company, which reported 33,622 such cars, as compared to 33,725 at the end of 1942. General American was the second largest operator of refrigerator cars, with 15,501, while Fruit Growers Express was third, with 15,020. The largest single operator of petroleum tank cars was Union Tank Car Co., with 38,673, with General American, reporting 37,471 of this type, taking second place. No other operator had as many as 10,000.

As in 1942, Pacific Fruit Express was second to General American in gross revenues, reporting $37,172,811 in 1943. Other large operators on this basis were Union Tank Car, reporting $30,398,558, and Fruit Growers Express, reporting $17,357,206.

Standard Passenger-Car Axle Adopted

On September 18, the A. A. R. Mechanical Divisions sent out to member roads its recommendations for standard dimensions for A. A. R. passenger car axles when used with roller bearings, also for axle-centering dimensions. This axle is not a new design but is the standard A. A. R. passenger car axle with ends modified to accommodate all four types of roller bearings, namely, Hyatt, SKF, Fafnir and Timken. As a result of favorable letter-ballot action, the revised journal dimensions for A. A. R. passenger-car axles when used with roller bearings, also axle-centering dimensions for both plain and roller-bearing axles, are adopted as standard and recommended practice, effective January 1.

Forwarder Revenues in 1943

The Interstate Commerce Commission has made public selected financial and operating statistics of freight forwarders for the calendar year 1943, compiled by the Bureau of Transport Economics and Statistics and released as Statement No. 4449. This is the second annual compilation made from annual reports to the commission, and was based on reports containing "complete information" received from 54 forwarders having gross annual revenues of $100,000 or more and 44 showing less than $100,000. The preliminary 1943 figures for 52 larger operators were summarized in *Railway Age* of June 10, 1944, page 1130.

The statement shows that the reporting forwarders had a 1943 gross revenue of $193,796,965, out of which they paid $153,631,431 for transportation purchased. The net after operating expenses and taxes, other than income taxes, was $2,579,373.

The bureau pointed out that data in the two annual summaries of forwarder statistics which it has compiled are not exactly comparable, due to the fact that a much larger proportion of the reports received in 1942 were incomplete. It therefore does not include comparative figures in the 1943 summary. The totals reported in its 1942 summary (covering a smaller number of forwarders) were noted in *Railway Age* of January 29, 1944, page 296.

3 Companies Do 70% of Business—As in 1942, the three largest forwarders were Acme Fast Freight, National Carloading, and Universal Carloading & Distributing. The forwarder revenues collected by these three were, respectively $43,356,461, $43,441,554, and $49,499,214, the total for the three being $136,297,229, or 70.7 per cent of the forwarder revenue of all reporting companies. There were 13 other companies having annual forwarder revenue above $1,000,000, the total for this group being $39,937,614. Thus the 16 largest operators reported 91.4 per cent of the forwarder revenue of the 98 concerns reporting, the total for the 16 being $176,234,843.

The bureau noted that 15 of the 54 larger forwarders (those with gross of $100,000 or more) showed deficits in net income for 1943. For the 54 larger firms, the net before income taxes was $2,024,806; the provision for income taxes, $1,170,928; and the net income after all taxes, $853,878.

The net income after taxes reported by the large forwarders was as follows: Acme, deficit of $229,896 in 1943, as compared to $281,483 income in 1942; National, deficit of $144,429, against $221,868 income in 1942; and Universal, $549,581 income, against the previous year's $1,074,730. Aside from Universal, the largest net after taxes reported in 1943 was Western Carloading's $293,163 on a total forwarder revenue of $4,528,162.

The volume of business handled in 1943 was indicated by operating statistics summaries showing that the 54 larger forwarders received 5,092,920 tons of freight from shippers in 21,226,975 separate shipments. Universal received the largest tonnage, 1,249,459 tons, while National was second, with 1,184,548 tons, and Acme came third with 1,016,833 tons.

I. C. C. Refuses to Reconsider Report on Loading Rule

The Interstate Commerce Commission has denied the railroad petition for reconsideration by the full commission of the I. & S. No. 5268 proceeding which involved proposed changes in Consolidated Freight Classification Rule 33 relating to multiple loading of carload freight.

As noted to the *Railway Age* of October 21, 1944, page 633, Division 2 reversed itself in this case, its report on reconsideration condemning as not just and reasonable the proposed new loading rule which the original report had indicated would be approved. The commission's refusal to reconsider made Division 2's order requiring cancellation of the suspended schedules effective January 12.

Retirement Benefits Certified in October Hit New Peak

Retirement benefits certified in October totaled $11,757,000, an increase of $106,000 over the previous peak reached in August, according to the Monthly Review of the Railroad Retirement Board. Compared with August, there were decreases in the amounts certified for pensions, death-benefit annuities, and lump-sum death benefits, and only a small rise in survivor annuities. Payments on employee annuities, however, showed an increase of over $220,000, accounted for in part by the unusually large number of new cases certified during the month. The 1,861 certifications was the highest since February 1941. Comparatively few deaths were reported. These two factors resulted in an increase of 1,100 or to a total of 142,100 in the number of employee annuitants on the rolls at the end of the month. Payments to employers under the prior service program were resumed in October and amounted to $59,000, leaving a balance in the prior service fund of $250,000.

Unemployment insurance in October showed increased activity in all its phases. Applications for certificate of benefit rights numbered 560, about 90 more than those in September. Benefit accounts opened, for 360 individuals who received payment for their first period of unemployment in the current benefit year, showed a gain of 35. Unemployed workers filed 2,180 claims for benefits, a rise of 330 over those filed the preceding month. The number of benefits paid rose to 1,690. The amount paid increased by over $6,000, to a total of $46,300. The average payment for initial periods of unemployment was $20.85. The average for subsequent periods was $28.93.

Placements verified by the employment service rose by 4 per cent over September, to a total of 105,000. Substantial increases occurred in placements of veterans and in recruitment of workers in one region for work in another. A total of 5,400 Mexican Nationals entered the United States in October for work on eight railroads. As of November 4, 1,420 placements had been made under the national "A" priority rating granted early in October to 13 western railroads. Of the 283,000 placements verified during the July-September quarter, 22,000 were as train-and-engine-service employees, 9,700 as skilled maintenance workers, 13,000 as office employees, 15,000 as helpers and apprentices, and 210,000 as laborers.

Pullman Plant Triples Production of Trench Mortars

By stepping up schedules and increasing working hours, in some departments to seven days a week, the Hammond, Ill., plant of the Pullman-Standard Car Manufacturing Company speeded up the output of 81-mm. trench mortars in December to three times the average monthly production maintained during the first 11 months of 1944, according to B. J. Trautman, works manager. Enough of these specialized weapons are being currently produced to equip two infantry divisions every three days, said Mr. Trautman.

"Due to the intense fighting on the European front, necessitating heavy replacements," he added, "and especially because the Pacific and Italian fronts, with the difficult terrain encountered, may be using many more trench mortars per division than those called for ordinarily, it is vitally important that these 'stepped-up' production schedules be maintained during 1945."

Mr. Trautman also announced that with the turn of the new year a new shell-forging line for the manufacture of 5-in. Navy anti-aircraft shells has been placed in operation. The work of changing over the shell line from 155 mm. to the new Navy shell has been completed and production is now under way.

The Pullman-Standard Hammond Ordnance plant, in addition to making 81-mm. trench mortars and anti-aircraft shells, is also maintaining its schedule in the manufacture of the 155-mm. "Long Tom" gun mounts, limbers and bogies and 105-mm. carriages and the gigantic transport wagons for the 240-mm. howitzer guns.

Washington Chapter of Army Transportation Association

The Washington, D. C., Chapter of the Army Transportation Association held an organization meeting recently, electing Brigadier General William J. Williamson president. Members of the Association are officers, enlisted men, and civilian personnel of the Army Transportation Corps, and chapters are being organized at points where the corps has field installations. The Association will also publish a magazine—the Army Transportation Journal.

Another Cut in Air Fares?

Announcement has been made by American Airlines of a proposed 6½ per cent reduction in its passenger fares, which slash, in addition to a previous 10 per cent cut, would in effect bring air rates to about 4 cents a mile, commensurate with many rail and Pullman fares. It is rumored that other major air lines may follow suit.

Equipment and Supplies

Turkey Sending Railroad Purchasing Commission

A special Turkish purchasing commission is now en route to the United States for the purpose of acquiring here locomotives, freight and passenger cars, signal equipment, safety devices, switches, operating and repair tools and spare parts. Turkey's plans for the post-war expansion of its transportation system will begin with an initial expenditure of $6,000,000 in the United States, with the long-term program laid down by the government amounting to perhaps seven times that much, according to Galib Guran, assistant director general of Turkish State Railways.

Mr. Guran, who recently visited the experimental foundry and metallurgical laboratories of the American Brake Shoe Company at the beginning of a tour of eastern heavy industry, said that domestic manufacture of rail equipment is out of the question for the present because of the fact that Turkey has only repair facilities which are in need of improvement. Most rail equipment and rolling stock will be purchased in foreign markets for some time to come. He stated also that vast road improvements are being made in conjunction with the railway program, and buses and trucks will be used as an adjunct to rail service, particularly in places where the topography makes railroad building impractical or impossible.

1944 Equipment Production Is Reported by O. D. T.

The Office of Defense Transportation on January 3 released figures summarizing the actual production of civilian transportation equipment in 1944, showing that 963 locomotives, 42,810 freight cars, and 1,900,000 tons of rail were furnished during the year, as compared to 830 locomotives, 28,790 freight cars, and 1,540,000 tons of rail in 1943.

These results were attained in spite of heavy military demands and manpower shortages, the O. D. T. pointed out, and represent "nearly" the program planned for the year in its role as claimant agency for domestic transportation. In addition, 939 troop sleepers and kitchen cars were produced in the early part of the year, this output being a carry-over from 1943 authorizations.

Detailed 1944 production figures (with December output estimated) are as follows:

Locomotives, 863—including 319 steam; 496 Diesel-electric switchers; 125 5,400-hp. Diesel-electric road; and 23 other Diesel-electric road types.

Freight cars, 42,810—including 20,038 box and 22,772 other types.

Railway marine equipment: 11 lighters and scows; 15 car floats; 1 tug.

Water transport equipment: 55 tugboats; 24 towboats; 143 steel barges; 7 wooden barges.

Passenger equipment: 939 troop sleepers

and kitchen cars; 285 street cars; 55 trolley buses; 5,150 integral buses; 6,100 bus chassis.

Truck: 65,184 medium; 18,343 light-heavy; 6,457 heavy-heavy.

Trailers: 22,500.

FREIGHT CARS

The NEW YORK CENTRAL has issued inquiries for 1,000 gondola cars of 70 tons' capacity for the Pittsburgh & Lake Erie.

The BALTIMORE & OHIO has ordered 500 50½-ft. auto-box cars of 50 tons' capacity from the Greenville Steel Car Company. Inquiry for this equipment was reported in the *Railway Age* of December 9.

The BANGOR & AROOSTOOK has ordered 100 box cars of 40 tons' capacity from the Magor Car Company.

The DENVER & RIO GRANDE WESTERN is reported to be considering the purchase of 500 box cars of 50 tons' capacity.

The MISSOURI-KANSAS-TEXAS has invited bids, at Denison, Tex., for specialties for 225 40-ton auto-box cars and 75 50-ton auto-box cars which it will build in its own shops.

The NORTHERN PACIFIC has placed orders for 1,000 box cars for third quarter, 1945, delivery, allocating 500 to the American Car & Foundry Co., and 500 to the Pullman Standard Car Manufacturing Company.

The ST. LOUIS SOUTHWESTERN, on January 3, asked the Federal District Court at St. Louis, Mo., for permission to spend $3,765,139 on road and equipment in 1945.

PASSENGER CARS

The CENTRAL OF GEORGIA has petitioned the Federal District Court at Savannah, Ga., for permission to purchase a streamlined train of stainless steel or aluminum and consisting of a locomotive and four cars, for operation between Atlanta, Ga., and Columbus, at a cost of $170,000 for the locomotive and $360,000 for the cars.

IRON AND STEEL

The SOUTHERN has ordered 4,911 gross tons of rail from the Tennessee Coal, Iron & Railroad Co. and 4,465 gross tons of rail from the Bethlehem Steel Company.

SIGNALING

The CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has placed an order with the Union Switch & Signal Co. for material to install a relay type electric interlocking at the junction of the Superior and Milwaukee divisions and the Chestnut street line at North Milwaukee, Wis., to control switches and signals as well as crossing gates at Hampton avenue. The order includes the required style H-2 high and dwarf signals, relays and housings, transformers, rectifiers and switch circuit controllers. The field installation work will be handled by the railroad company's forces.

Supply Trade

Budd Company Delivers Eight-Inch Shells

The Edward G. Budd Manufacturing Company has shipped to an Army arsenal for loading the first carload of 600 eight-inch shells made at its Bustleton, Pa., plant. Edward G. Budd, Jr., executive vice-president of the Budd Company, said the shipment marks the completion of the first stage of the job of converting the plant into the largest single factory given over to the production of large calibre shells in the United States and that shipments will be increased as rapidly as the necessary new equipment is installed.

The **Leslie Company,** Lyndhurst, N. J., has been awarded a fourth renewal of its Army-Navy "E" and the right to retain its new flag, with four stars, for a year. The company also will be presented the Maritime "M" pennant later this month in recognition of its outstanding production achievement.

A special type of tube-roller produced by the **Baldwin Locomotive Works** is enabling the **General Electric Company** to shape, from plastics, thousands of flying bazooka rocket launchers which are being used on Thunderbolt and other fighter planes. Made from a special paper plastic developed by General Electric's plastics division at Pittsfield, Mass., thousands of these weapons are being produced in the General Electric plant in Lowell, Mass. Baldwin's contribution to the flying bazookas was the building of a new type of tube-roller which forms the paper plastic into tubes 10 ft. long and four and one-half in. in diameter.

Gene Franke, formerly principal administrative analyst, Army Service Forces, has been appointed director of advertising and public relations for the **Aireon Manufacturing Corporation,** with headquarters at the corporation's Kansas City, Kan., plant. Prior to the war, Mr. Franke was employed for 20 years in sales, sales administration and advertising for a number of leading manufacturers.

Henry W. Foulds, executive vice-president of the **Permutit Company** of New York, has been elected president to succeed **W. Spencer Robertson,** who becomes chairman of the board.

John B. Tinnon, vice-president in charge of sales, and **Walton S. Smith,** vice-president in charge of production, have been elected to the board of directors of the **Metal & Thermit Corp.**

Thomas F. Dorsey, sales manager of the Fort Pitt Steel Casting Company, has joined the **Pittsburgh Steel Foundry Corporation,** Glassport, Pa., in a special representative capacity.

L. M. Parsons, formerly vice-president and general manager of sales of the Jones and Laughlin Steel Corporation, has been appointed assistant to vice-president-sales of the **United States Steel Corporation of Delaware** with headquarters in Washington. Mr. Parsons was born in Philadelphia, Pa., in 1898. After graduating from the University of Pennsylvania he entered the employ of the Bethlehem Steel Company in 1919 and in 1936 he became district manager of sales at Philadelphia. He became vice-president and general manager of sales of the Jones and Laughlin Steel Corporation in 1938.

The **Jones & Laughlin Steel Corp.** has purchased the Oil City, Pa., electric welded tube plant of **Talon, Inc.** The new acquisition will be known as the Electric Weld Tube division of the Jones & Laughlin Steel Corp. and will be operated with the present personnel.

D. C. Greene, district manager for the **Haskelite Manufacturing Corporation** at St. Louis, Mo., has been transferred to New York.

P. G. McAusland, comptroller of the **Reliance Electric & Engineering Co.,** Cleveland, Ohio, has been elected treasurer also to succeed **H. M. Hitchcock,** who has retired.

David C. Prince, vice-president of the **General Electric Comapny,** has been appointed in charge of the company's general engineering laboratory, the activities of which will be broadened to include the requirements of the entire company.

Howard W. Gilbert has been appointed engineering assistant to the president in charge of specialty engineering development and testing for the **National Malleable & Steel Castings Co.,** Cleveland, Ohio.

The **Cleveland Distributing Company,** a division of the Cleveland Cooperative Stove Company, has been appointed distributor in Cleveland and northern Ohio of the forthcoming line of AM and FM radios and radio-phonograph combinations of the Bendix radio division of the **Bendix Aviation Corporation. Howard J. Shartle,** regional chief of the radio and radar division of the War Production Board in Cleveland, Ohio, for the past two years, has been appointed general manager of the Cleveland merchandising organization.

R. E. Penny, manager of the Jacksonville, Fla., branch of the **Crane Company,** has been appointed manager at Los Angeles, Cal., to succeed **D. D. Updegraff,** who has resigned. **L. R. Bauer,** manager at Brooklyn, N. Y., and New Haven, Conn., succeeds Mr. Penny at Jacksonville, and **J. J. Murray,** a planning department analyst at the Chicago works, has been appointed manager at New Haven. **O. F. Woodyard,** former manager at Little Rock, Ark., has been appointed manager in Memphis, Tenn., to succeed **F. A. Duncan,** who has retired, and **A. C. Gribble,** a salesman at the Houston, Tex., branch, has been appointed manager at Little Rock.

Net Profit reported by the **Canadian Car & Foundry Co.,** for the year ending September 30, 1944, amounted to $5,326,722 before provision for depreciation and income and excess profit taxes, an increase

of $439,593 over the preceding year. Depreciation charged amounted to $1,835,415 and provision for income and excess profit taxes to $2,361,000. Net working capital was reported at $6,700,953, an increase of $754,549 over the previous year. In his annual report, V. M. Drury, president, said that during the past year the car and steel foundry plants operated at full capacity, and orders for railway equipment on the books, the great majority being for export, will continue to keep these plants fully employed to the end of 1945. He said the company was again forging three different types of large caliber shells, after having closed down these operations some time ago, and that the aircraft plant at Fort William was producing the Curtiss-Wright dive bomber for the United States Navy.

L. S. Peabody has been appointed eastern district sales manager for steam and Diesel locomotives for the **American Locomotive Company** to succeed **A. K. Auburn,** who has resigned. Mr. Peabody also will retain all of his present duties as district sales manager of the company's Railway Steel-Spring Division. He began his career with the Western Electric Company where he remained for a few years and then transferred to the Burnet Company as a salesman of mill and electrical supplies, for the railroad equipment field. He joined the sales force of the Railway Steel-Spring Company in 1909 and later was appointed New York district sales manager, which position he continued to occupy after the consolidation of the Railway Steel-Spring Company with the American Locomotive Company. He subsequently was appointed district sales manager of that division.

L. S. Peabody

Edward A. Abbott, railroad sales executive of **Poole Bros., Inc.,** Chicago, has retired after 34 years of service with the company. Mr. Abbott started his career as an office boy in the passenger department of the Canadian Pacific in New York in 1888. In the following year he sold tickets for the New York, Ontario & Western and in 1890 was appointed manager of the Jacksonville, Fla., office of Thos. Cook & Son. In 1896 he entered the employ of the Chicago, Burlington & Quincy, working in the passenger department until 1906 when he was promoted to advertising agent. He held this position until 1910 when he resigned to become sales executive of Poole Bros. He has been secretary of the American Association of Railway Advertising Agents since its beginning in 1924.

Francis M. Huffman, whose appointment as traffic manager of the **Bethlehem Steel Company** was reported in the *Railway Age* of December 9, was graduated from Lehigh University in 1922 and joined Bethlehem Steel in that same year. He was assigned to the sales department and located successively in Philadelphia, Pa., Chicago, St. Louis, Mo., and Baltimore, Md. He served as manager of sales in the St. Louis district and as assistant manager of sales at Baltimore. In 1940 he was transferred from sales to traffic and entered the latter department in the Bethlehem office as assistant general traffic manager, which position he held at the time of his new appointment. He is a veteran of the first world war and served overseas with the 28th division.

W. S. Kirkpatrick has been appointed assistant to the president of the **Flannery Bolt Company,** Bridgeville, Pa., with headquarters in New York. Mr. Kirkpatrick was formerly associated with the management firm of Houston & Jolles of New York and was vice-president of the A. O. G. Corporation of Providence, R. I. Previously he was contract officer for the British Purchasing Commission, following several years in Europe on special assignment for the International Telephone & Telegraph Corp.

W. S. Kirkpatrick

Frank P. Rhame, a director and vice-president and assistant general manager of the **Lunkenheimer Company,** has been appointed general manager to succeed **Charles A. Brown,** who has retired. Mr. Rhame has been associated with the Lunkenheimer Company for over 25 years. **Homer E. Lunken,** a director, succeeds him as assistant general manager. **Carra L. Lane** has been appointed works manager to succeed **George A. Seyler,** who has retired as vice-president in charge of manufacturing, and **Fred H. Hehemann,** assistant chief engineer, has been appointed chief engineer to succeed **Jerome J. Aull,** who has retired after nearly 50 years of service.

Clarence E. Searle has been elected president of the **Worthington Pump & Machinery Corp.** to succeed **Harry C. Beaver,** who becomes vice-chairman of the board of directors and chairman of the management committee. Mr. Beaver had been president of the corporation since 1931, and Mr. Searle had been vice-president in charge of sales since joining the Worthington organization in 1932, following a long period of service in various executive capacities with the Allis-Chalmers Manufacturing Company of Milwaukee, Wis. **Hobart C. Ramsey,** vice-president in charge of operations, has been elected executive vice-president; **Edwin J. Schwanhausser,** vice-president in charge of manufacturing and sales operations in Buffalo, N. Y., has been elected vice-president in charge of sales, and **Leslie C. Ricketts,** manager of the Harrison, N. J., works, has been elected a vice-president.

Clarence E. Searle

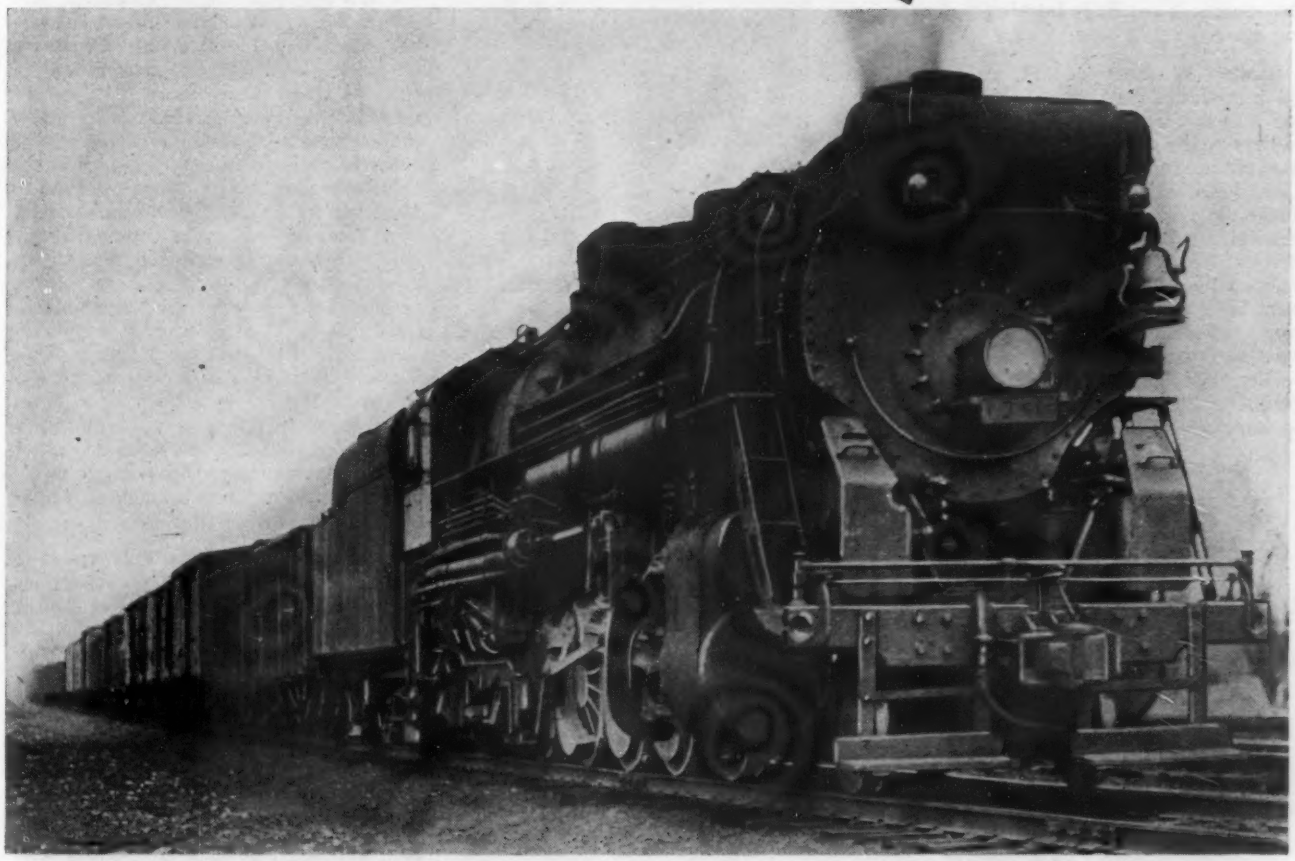
Hobart C. Ramsey

J. F. Considine has been appointed assistant district manager of the Chicago plant and **W. C. Roederer,** assistant district manager of the St. Charles, Mo., plant of the **American Car & Foundry Co.**

Effective December 31, 1944, the **J. G. Brill Company** and the **A. C. F. Motors**

News Department continued on next left-hand page

RECORDS
are made to be broken



Today, the railroads are performing transportation miracles with inadequate equipment. Tomorrow, peacetime industry will require still more exacting performance.

To meet such demands, Lima Super-Power steam locomotives are designed to haul heavier trains at higher speeds on longer runs.

LIMA LOCOMOTIVE WORKS INCORPORATED

LIMA LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

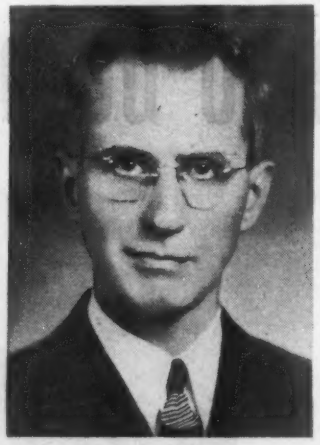
Company merged into the **ACF-Brill Motors Company.** The principal officials of the new company are **Charles J. Hardy,** chairman of the board; **John E. Rovensky,** chairman of the executive committee; **R. R. Monroe,** president and general manager; **L. A. Blackford,** vice-president; **C. C. Castle,** vice-president; **L. H. Corlette,** vice-president, transit sales; **F. E. Dayes,** vice-president, intercity sales; **W. J. Beatty,** vice-president, foreign sales; **H. A. Flogaus,** vice-president, engineering; **Ed. L. Oerter,** secretary-treasurer; **C. F. Hoell,** comptroller; **Lester P. Philp,** assistant to chairman of the board; **M. A. Hardie,** assistant to the president; **R. H. Sjoberg,** assistant general manager; and **F. J. Larkins,** purchasing agent.

Samuel W. Fordyce III, assistant to the president of the Kansas City Southern, has been appointed general manager of the railway equipment division of the **Aireon Manufacturing Corporation** of Kansas City, Mo. In his new position, he will direct the introduction of the radio communications equipment for railroads as developed by Aireon and later market additional electronic and hydraulic equipment for use by railroads which the company expects to manufacture. Mr. Fordyce was graduated from Harvard University and the Harvard Engineering School and began his business career as an engineer for the Arkansas Power &

Samuel W. Fordyce III

Light Co., later becoming assistant general manager of the Mississippi Power & Light Co. He subsequently was employed for a number of years in banking and insurance in St. Louis, Mo., and began his railroad career in 1936 as industrial commissioner of the Louisiana & Arkansas. Shortly after the acquisition of this railroad by the Kansas City Southern Lines in 1938, he was appointed assistant to the executive vice-president and, in 1941, assistant to the president. During 1942, on a year's leave from the Kansas City Southern, he also served as assistant director in the Office of Defense Transportation in Washington.

L. R. Gurley, who was appointed vice-president of the **T-Z Railway Equipment Company,** with headquarters at Chicago, as announced in the *Railway Age* issue of December 30, will in addition to engineering and production responsibilities, be in charge of railway sales in the eastern and northeastern states. Mr. Gurley was born in Altoona, Pa., and is a graduate in railway mechanical engineering of the University of Pittsburgh, Pa. (1920). In January, 1923, he completed a three-year course as a special apprentice in the Altoona shops



L. R. Gurley

of the Pennsylvania and became a motive-power inspector assigned to the office of the supcrintendent of motive power at Pittsburgh. In May, 1924, he became associate editor of the *Railway Age* and Railway Mechanical Engineer. He left the Simmons-Boardman Publishing Corporation in 1929 to become editor of Welding, a publication of Steel Publications, Inc. In 1935 he rejoined the Simmons-Boardman publications as a business department representative at Chicago and in 1940 was transferred to the eastern territory, working out of the New York office. He resigned in February, 1944, to join the Chicago sales staff of the Haire Publishing Company, and now becomes vice-president of the T-Z Equipment Company.

William B. Given, Jr., president of the **American Brake Shoe Company,** has accepted the chairmanship of the Manhattan commerce and industry committee, Red Cross 1945 War Fund of Greater New York. Under Mr. Given's chairmanship the manufacturing, commercial and professional fields will be mobilized to support the Red Cross War Fund. In the 1944 campaign, Mr. Given headed the communications and transportation industries which formed a section of the commerce and industry committee. In previous War Fund appeals the commerce and industry committee has accounted for approximately two-thirds of all the funds raised in New York. **R. B. Parker,** also of the American Brake Shoe Company, will serve as assistant to the chairman.

W. H. Brewer, general manager of the Aurora, Ill., factory of the **Independent Pneumatic Tool Company,** has retired after 36 years of service in the plant.

OBITUARY

Harry B. Crocker, resident engineer in Mexico for the Dearborn Chemical Company, died in Mexico City, D. F., on January 5 of a heart attack. Mr. Crocker was a chemist of the Atchison, Topeka & Santa Fe from 1914 to 1926, and assistant manager of the Chipman Chemical Company from 1926 to 1927. He entered the employ of the Dearborn Chemical Company as service engineer in its railroad department in 1928, and took over the management of its water treatment work in Mexico in 1941.

Construction

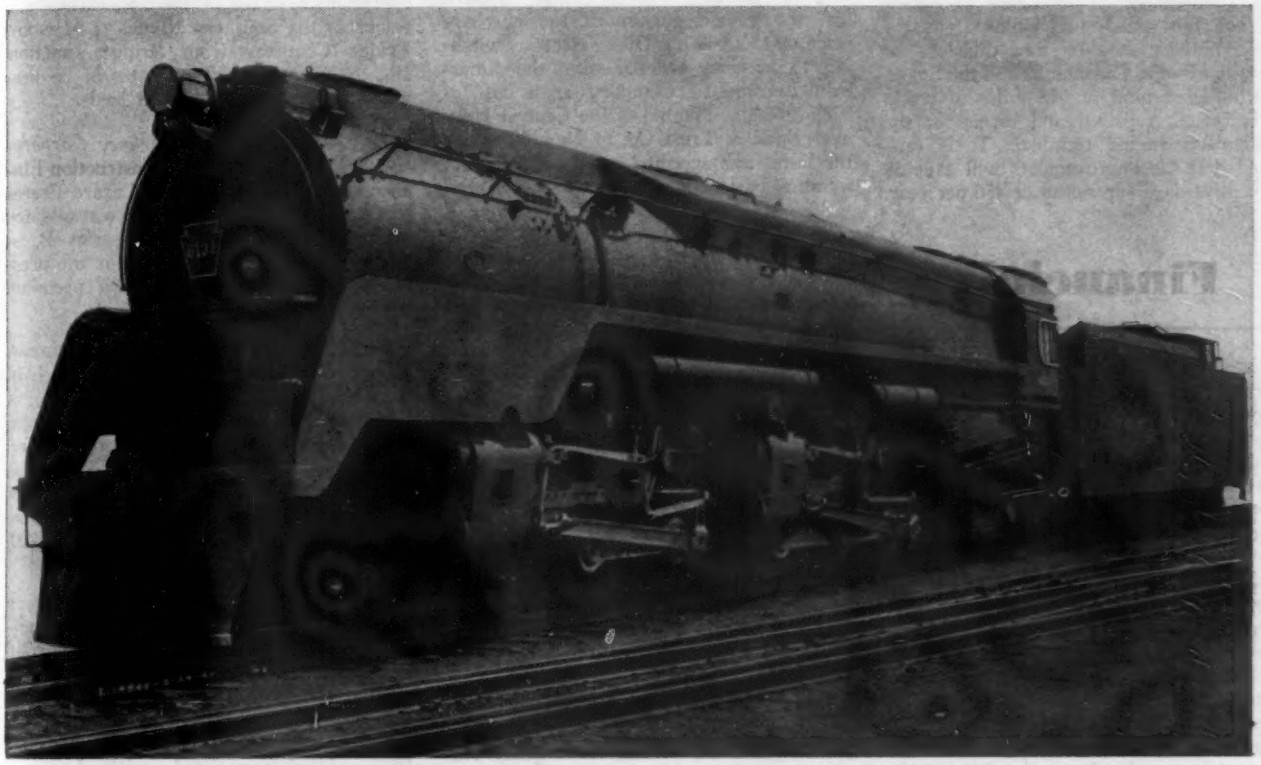
FLORIDA EAST COAST.—Examiner Jerome K. Lyle in a proposed report has recommended that the Interstate Commerce Commission authorize this road to build a new line from Fort Pierce, Fla., on its main line, to milepost 152.5 on its Okeechobee branch, a distance of about 29.5 miles. Upon completion of this project the existing branch line from milepost 152.5 to Maytown, 136.1 miles, would be abandoned, since the new line would enable the carrier to give faster service to the traffic-producing territory near the end of the existing branch and at the same time be more economical. Construction would cost about $1,150,000, and would be completed in about 18 months after authorization is received. The line would be rock ballasted single track, laid with second hand 90-lb. rail, with a 0.267 per cent maximum grade and 4-deg. maximum curvature. It would include 23 wooden trestles with an aggregate length of 1,656 ft.

NEW YORK, NEW HAVEN & HARTFORD.—This railroad has awarded a contract for alterations to its Diesel locomotive shop at Boston, Mass., at estimated cost of $103,000, to the Tredennick-Billings Company of Boston.

NORFOLK & WESTERN.—This railroad is engaged in making extensive improvements at its Williamson, W. Va., engine terminal designed to help speed war-time traffic by increasing the availability of locomotives. The project includes the retirement of several buildings and their replacement with structures and equipment of modern design. New buildings and facilities will include a brick and glass block engine service building, 60 ft. by 165 ft., with two 135-ft. inspection pits; a three-track concrete engine washing platform, 140 ft. long, combined with ash-handling facilities which will serve six tracks; an improved track layout; four standpipes with necessary piping; a shelter house, 10 ft. by 15 ft.; two ice houses, 15 ft. by 20 ft., and a concrete roadway, 12 ft. wide and 1,200 ft. long.

SOUTHERN.—This company has authorized the installation of flashing light signals at Manassas, Va., at estimated cost of $21,200, by the company's own forces and the renewal of its Cahaba River bridge near Baines, Ala., at estimated cost of $78,810, the contract for which has not yet been awarded. The Southern has awarded a contract for rebuilding its freight station at Anniston, Ala., at estimated cost of $79,000, to the Brice Building Company, Birmingham, Ala.

Pennsylvania Railroad's ... New Fast Freight Engine



This Wartime Giant, P.R.R. Class Q-2, with its tender, built by the Pennsylvania Railroad, tips the scales at more than a million pounds. Overall length of the locomotive and tender is 124 feet 7 inches; its height is 16 feet 5 inches. The engine develops starting tractive effort (pull exerted on a standing train) of 114,860 pounds. High pulling power is maintained up to 70 miles an hour.

These Locomotives are equipped with the new TYPE E Locomotive Boosters.*

*Trade Mark Reg. U.S. Pat Off.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

Buildings and facilities to be retired in order to make way for the new structures and track layout include the west roundhouse with its 100-ft. turntable; one stall of the east roundhouse; one bay of the machine shop; the carpenter shop building; two concrete engine washing platforms and engine wash shed; four ash hoists between the coaling station and the west roundhouse; four engine inspection pits and the wheel shop building.

Locomotives used on two divisions of the railway—the Pocahontas and the Scioto—including a total of 918 miles of track, are serviced, repaired and turned at the Williamson engine terminal. It is estimated that the improvements will save 38 locomotive-days per month or 456 per year.

Financial

ALTON.—*Trustee Files Reorganization Plan.*—Henry A. Gardner, trustee of the Alton, has filed with the I. C. C. and in the Federal District Court at Chicago a plan of reorganization for the railroad based on an engineer's survey of the properties of the Alton and controlled and leased lines. The plan, which would become effective as of January 1, proposes total new capitalization of $74,387,379—compared to $98,927,376 for the old company—of which $4,410,598 represents equipment trust obligations to be taken over by the new company and $34,976,781 represents capital stock. The remainder is divided into 50-year 4 per cent first mortgage bonds of $15,000,000 and 75-year 4½ per cent income bonds totaling $20,000,000. Annual fixed charges would total $100,000 on equipment obligations and $600,000 on the first mortgage, with contingent charges at $900,000. The Joliet & Chicago, the Louisiana & Missouri River and the Kansas City, St. Louis & Chicago would be absorbed by the reorganized company. Creditors would receive new securities as follows: The holders of refunding mortgage bonds would receive for their total claim 35.87 per cent in income bonds and 64.13 per cent in new capital stocks. The Joliet company and its guaranteed stockholders would receive 79.30 per cent of their claim in income bonds and 20.70 per cent in stock.

The Louisiana company and its guaranteed stockholders would receive 79.03 per cent in income bonds and 20.97 per cent in stock. The Kansas City company and guaranteed stockholders would receive only 76.26 per cent of their claim in stock, which eliminates claims for unpaid dividends on the old Kansas City stock. The sum of $173,166 in cash belonging to the Kansas City company is to be paid to the company upon consummation of the plan. If the sum of $50,477 paid by the Alton to the mortgage trustee as interest on the refunding bonds under an agreement of June 15, 1942, "should be held to be a payment upon such interest, the claim of the refunding mortgage and its participation in new securities should be correspondingly reduced," the plan states. The old company's stock, held by the B. & O., would not participate in the reorganization. The new first mortgage bonds would be sold to obtain funds for rehabilitation and new equipment.

BALTIMORE & OHIO.—*Promissory Notes.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue $1,059,750 of series G promissory notes in evidence of, but not in payment for, the unpaid portion of the purchase price of 15 1,000-hp. Diesel-electric switching locomotives ordered from the American Locomotive Company at a cost of $78,500 each. The bid of the Central Hanover Bank & Trust Co. of New York for the issue was accepted on a 1.62 per cent interest basis.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Balloting on Reorganization Plan.*—Division 4 of the Interstate Commerce Commission has certified the results of balloting by specified classes of creditors to whom the plan of reorganization of this company was submitted for acceptance or rejection. The terms of the plan were outlined in *Railway Age* of December 18, 1943, page 987, while certain modifications were noted in the issue of May 6, 1944, page 879. Ballots were returned by 9 classes of creditors, all showing a majority for acceptance, and opposition in excess of one per cent of the total vote counted was reported in only two classes. Holders of Chicago, Milwaukee & Gary first mortgage bonds were counted 93.56 per cent for acceptance, while 87.88 per cent of voting holders of parent company convertible adjustment mortgage bonds signified acceptance. The Reconstruction Finance Corporation and the Federal Emergency Administration of Public Works, holders of secured notes, accepted the plan, as did holders of Milwaukee & Northern first mortgage bonds, 100 per cent. Negligible opposition was registered in votes counted of the following classes of creditors: Holders of Milwaukee & Northern consolidated mortgage bonds, of miscellaneous preferred claims allowed by the court, and of the old parent company's general mortgage bonds and 50-year mortgage bonds.

COLUMBIA & MILLSTADT-GULF, MOBILE & OHIO.—*Acquisition.*—Division 4 of the Interstate Commerce Commission, with Commissioner Miller dissenting, has authorized the Columbia & Millstadt, a new company organized in August, 1944, to purchase and operate a Gulf, Mobile & Ohio branch from Millstadt Junction, Ill., to Millstadt, 7.61 miles. The purchase price, $27,100, the approximate salvage value of the line, is to be paid in 10 equal annual installments, with interest at 5 per cent. Authority has been granted the new company to issue $25,000 of capital stock, subject to further examination by the commission as to amounts in excess of an initial $5,000 to provide working capital. The president of the new company is an officer of a stone quarry served by the branch, and train operation is expected to be performed with a locomotive and crew regularly engaged in work on the industry's tracks. In authorizing the transaction, the majority of Division 4, Commissioners Mahaffie and Porter, did not follow the recommendation of the examiner's proposed report, noted in *Railway Age* of December 9, 1944, page 902.

CHICAGO & EASTERN ILLINOIS.—*Trackage Rights.*—This road has applied to the Interstate Commerce Commission for authority to enter new trackage-rights arrangements whereby it may continue operations over the bridge, approaches, and tracks of the Southern Illinois & Missouri Bridge Company from Bridge Junction, Ill., to Illmo, Mo. Payment will be provided for on a cars-handled basis.

ERIE.—*Reconstruction Finance Corporation Sells Bonds.*—The Reconstruction Finance Corporation has sold to Lazard Freres & Co. $7,360,000 of Erie first consolidated mortgage 4 per cent bonds, series B, at 105 and accrued interest. This is the present call price and represents a premium to the R. F. C. of $368,000.

FONDA, JOHNSTOWN & GLOVERSVILLE.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has modified previous orders fixing maximum rates of compensation of Judson Zimmer, substitute trustee in this road's reorganization proceedings, and of his counsel, Maider & Maider, now approving as reasonable annual compensation of $9,000 and $10,700, respectively.

GULF, MOBILE & OHIO.—*Promissory Notes.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue two promissory notes in the total amount of $155,144 in connection with the purchase under a lease agreement of two 1,000-hp. Diesel-electric switching locomotives ordered from the American Locomotive Company. The bid of the National Commercial Bank & Trust Co. of Albany, N. Y., for the notes was accepted on a 1.65 per cent interest basis.

LOUISVILLE & NASHVILLE.—*Bonds.*—This company has advised the Interstate Commerce Commission that, subject to its approval, it has aceepted the bid of 104.66 made by Halsey, Stuart & Co. and others for $53,835,000 of series F first and refunding mortgage 3⅜ per cent bonds which it proposes to issue. The bonds were reoffered for sale to the public at 105.88. (Previous item in *Railway Age* of December 23, 1944, page 976.)

MAINE CENTRAL.—*Promissory Notes.*—This company has applied to the Interstate Commerce Commission for authority to issue $258,413 of promissory notes in connection with its purchase of the following equipment: one 660-hp. Diesel-electric switching locomotive from the American Locomotive Company at a cost of $59,750; three 44-ton Diesel-electric switching locomotives from the General Electric Company at a cost of $38,325 each; and 12 steel dump cars from the Austin-Western Company at $6,974 each.

MINNEAPOLIS, NORTHFIELD & SOUTHERN.—*Notes.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue $300,000 of first mortgage 3 per cent installment notes to secure bank loans with which, together with other funds in

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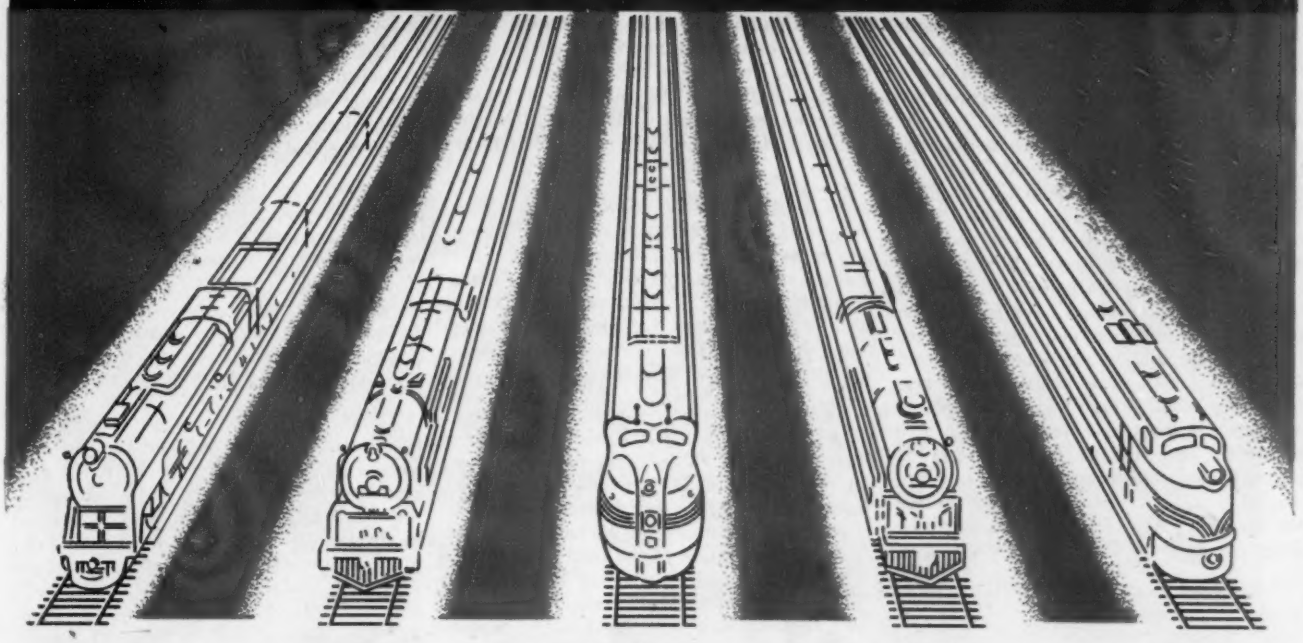
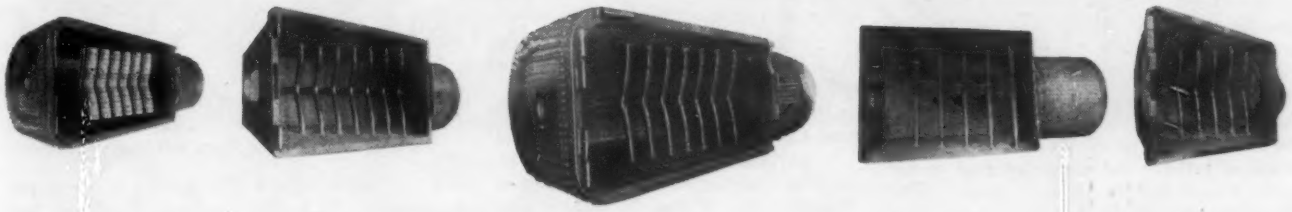
TO INCREASE Locomotive AVAILABILITY





Besides safeguarding the boiler by assuring a continual flow of water over the center of the crown sheet, Security Circulators have many other advantages that increase Locomotive Availability.

- They reduce honeycombing, flue plugging and cinder cutting.
- They form an ideal support for arch brick and increase the life of the brick.
- They permit the use of a 100% arch and promote better combustion.
- They increase the strength of the firebox structure and tend to prevent boiler distortion.

For these reasons the installation of Security Circulators helps to make locomotives available for continuous operation over longer periods of time and also lowers maintenance costs.

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NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

its treasury, it proposes to redeem at 101 the outstanding $407,000 of series A first mortgage gold bonds due in 1956, on which the current interest rate is 5 per cent.

NEW YORK, NEW HAVEN & HARTFORD.—*Circuit Court Rulings.*—On January 2 the United States Circuit Court of Appeals reversed in part orders of the United States District Court in Connecticut approving the New Haven's reorganization plan. When the New Haven's petition for reorganization was filed on October 23, 1935, the Bank of Manhattan Company, the Rhode Island Hospital National Bank of Providence, R. I., and the Merchants National Bank of Boston, Mass., held notes of the railroad which were secured by collateral covering about 83 per cent of the notes. In the course of the reorganization, the banks were restrained from selling this collateral, the value of which subsequently disappeared. The district court treated the banks as unsecured creditors, but the circuit court directed that they be classified as secured creditors to the extent to which they could have realized on their collateral had they not been restrained from selling, and as unsecured creditors for the balance. The circuit court also found that a valuation of $5,756,000 placed on assets of the Old Colony which are to be turned over to the New Haven was unsatisfactory and directed that a new appraisal be made. The circuit court upheld the lower court's finding that the New Haven's common stock was valueless.

NEW YORK, NEW HAVEN & HARTFORD.—*Boston & Maine Separation Urged.*—A Massachusetts legislative commission has recommended complete ownership separation of the New Haven and the Boston & Maine. A report of the recess commission calls for legislation to force the Boston Railroad Holding Company, all the common stock of which is owned by the New Haven, to sell its Boston & Maine stock or to have the voting control of the stock transferred to public trustees. The New Haven's report for 1943 shows that the railroad owned or controlled, through non-reporting subsidiaries, about $22,000,000 par value of the Boston & Maine's $39,500,000 of common stock outstanding. The commission stated that it considered the close relationship of these railroads disadvantageous to the public but that there was no evidence that the New Haven has acted improperly in any respect in relation to its control of the Boston & Maine.

PENNSYLVANIA.—*Awards Bonds.*—On January 9 the Pennsylvania awarded its $51,782,000 issue of new general mortgage bonds, series F, due January 1, 1985, to Kuhn, Loeb & Co. and associates on a bid of 100.609 with a 3⅛ per cent coupon. The bonds were immediately reoffered at 101.68, subject to the approval of the Interstate Commerce Commission. The proceeds, together with other funds, are to be used to retire on April 1, $60,000,000 of 40-year 4½ per cent gold debenture bonds. In addition to the bonds awarded to the banking group, $8,218,000 of the same series was issued to replace a similar amount of bonds held by various companies in the Pennsylvania system.

SEABOARD AIR LINE.—*Reorganization Declared Effective.*—On January 3, the Seaboard Air Line's reorganization plan was declared operative by the railroad's reorganization committee, following acceptance of the plan's terms by holders of more than 66⅔ per cent of the Seaboard's securities outstanding in the hands of the public.

WASHINGTON TERMINAL.—*Bonds.*—This company has advised the Interstate Commerce Commission of its acceptance, subject to commission approval, of the bid of Dillon, Read & Co. and others of 100.81 for $11,000,000 of 2⅝ per cent series A first mortgage bonds. (Previous item in *Railway Age* of December 23, 1944, page 977.)

WABASH.—*R. F. C. Sells Bonds.*—Secretary of Commerce Jones announced January 5 the sale by the Reconstruction Finance Corporation of $10,580,300 of this company's series A first mortgage bonds to the Metropolitan Life Insurance Company at 101.75. This represents a premium to the R. F. C. of $185,155.

WESTERN PACIFIC.—*Reorganization.*—The Western Pacific Railroad, on December 28, elected 9 new directors to serve on the board of 11 members which took over direction of the reorganized company's business and affairs on January 1, 1945, following operation of the road for 9 years and 4 months under control of T. M. Schumacher and Sidney M. Ehrman, reorganization trustees appointed by Federal Judge A. F. St. Sure. Four of the newly elected directors are San Francisco business men, one is from Salt Lake City and four are from New York. Charles Elsey, president, and E. W. Mason, vice-president and general manager of the Western Pacific Railroad Company, will continue as directors.

In addition to Mr. Elsey and Mr. Mason, the newly elected directors residing in San Francisco are Wakefield Baker, president of Baker and Hamilton; Edward H. Bell, vice-president of the American Can Company; J. A. Folger, formerly president of J. A. Folger & Co., but now an officer of the War Production Board; and J. W. Mailliard, Jr., president of Mailliard & Schmiedell, importers. The new director from Salt Lake City is J. Reuben Clark, Jr., first counsellor in the first presidency of the Mormon Church. The newly elected directors from New York are E. G. Buckland, president of the Railroad Credit Corporation; Robert E. Coulson, of the law firm of Whitman, Ransom, Coulson & Goetz; Harry C. Hagerty, treasurer of the Metropolitan Life Insurance Company; and Frank C. Wright, of the Reconstruction Finance Corporation.

Dividends Declared

British Columbia Electric.—5% prior preference, 2½%, semi-annually, payable January 15 to holders of record December 31.

Louisville, Henderson & St. Louis.—common, $4; 5% preferred, $2.50, both semi-annually, both payable February 15 to holders of record February 1.

Northern of New Hampshire.—$1.50, quarterly, payable January 31 to holders of record January 11.

Pittsburgh, Cincinnati, Chicago & St. Louis.—$2.50, semi-annually, payable January 20 to holders of record January 10.

Average Prices Stocks and Bonds

	Jan. 9	Last week	Last year
Average price of 20 representative railway stocks..	52.86	48.07	36.51
Average price of 20 representative railway bonds..	94.49	93.72	82.52

Abandonments

NEW YORK CENTRAL.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon operation of, and the Michigan Central to abandon, a 0.96-mile segment of line within the corporate limits of Toledo, Ohio, over which no service had been performed since 1933.

NEZPERCE & IDAHO.—Upon request of the carrier and interested parties, the Interstate Commerce Commission has further extended to May 1, 1945, the effective date of the certificate by which Division 4 on April 12 authorized this road to abandon its entire line from Nezperce, Ida., to Craigmont, 13.8 miles. (Previous item in *Railway Age* of April 29, page 839.)

TEXAS & PACIFIC.—Division 4 of the Interstate Commerce Commission has reopened its Finance Docket No. 13449 proceedings, in which this road's subsidiary, the Cisco & Northeastern, was authorized to abandon its entire line from Cisco, Tex., to Throckmorton, 65.5 miles (noted in *Railway Age* of February 7, 1942, page 358), in order to determine whether terms and conditions should be imposed for the protection of employees adversely affected. This action followed a petition for reconsideration filed with the commission by the Brotherhood of Railway Clerks, asking an allowance of money damages to certain employees represented by that union who were said to have been adversely affected.

FLORIDA EAST COAST.—In a proposed report, Examiner Jerome K. Lyle has recommended that Division 4 of the Interstate Commerce Commission authorize the abandonment of a portion of this road's Okeechobee branch from Maytown, Fla., to milepost 152.5, near Okeechobee, about 136.1 miles. Such authority would be effective upon completion of a new line from milepost 152.5 to the F. E. C. main line at Fort Pierce, 29.5 miles, and authorization of this construction was recommended at the same time. The segment to be abandoned was built to serve lumber mills which have ceased operation, and now produces very little traffic, the examiner reported, but the portion of the branch south of milepost 152.5, which the road proposes to continue to operate, is expected to yield annual revenues of some $2,600,000 within 5 years, due to the development of vegetable growing and related new industries. Rather than maintain the unproductive segment, the carrier considers the construction of a cut-off to bring this traffic to the main line at Fort Pierce more economical and at the same time a means of giving improved service, and the examiner reached the same general conclusion.

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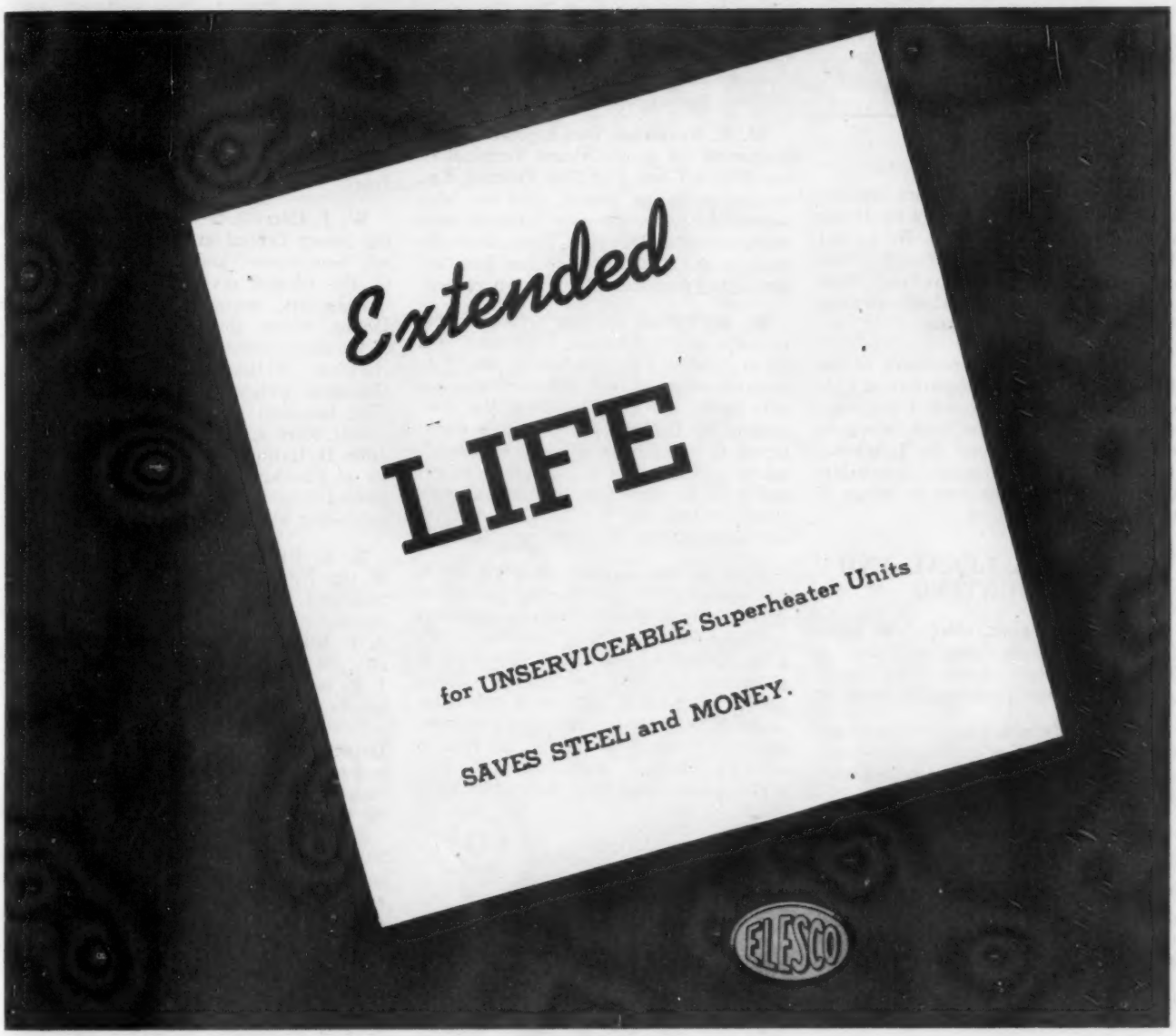

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Railway Officers

EXECUTIVE

Benjamin F. Davis, assistant superintendent of the Central division of the Jersey Central Lines at Jersey City, N. J., and **Philip M. Parker,** a member of the chief executive officer's staff, have each been appointed assistant to the chief executive officer, newly created positions.

Floyd R. Mays, vice-president of the Illinois Central, with headquarters at Chicago, who has been on sick leave since last September, has retired because of continued ill health. **Wayne A. Johnston,** who has been general manager during Mr. Mays' absence, will continue in charge of the operating department.

FINANCIAL, LEGAL AND ACCOUNTING

Patrick J. Cronin, chief claim agent of the Pennsylvania, western region, at Chicago, has been promoted to special solicitor, with the same headquarters.

Frank W. Franek, auditor of passenger accounts of the Union Pacific, with headquarters at Omaha, Neb., has retired after 45 years of service.

W. C. Hannenberg, auditor of investment and joint facility accounts of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been advanced to assistant comptroller, with the same headquarters, succeeding **J. W. Severs,** whose promotion to executive assistant and comptroller was reported in the *Railway Age* of January 6. **F. W. Lippert,** assistant general accountant, has been advanced to general accountant at Chicago, relieving **A. J. Wallander,** who has been advanced to assistant auditor of capital expenditures, and **H. W. Leal,** budget engineer, has been promoted to auditor of capital expenditures.

OPERATING

E. C. Johnson, trainmaster of the New York Central at Erie, Pa., has been promoted to assistant superintendent of the Western division, with headquarters at Chicago, succeeding **J. W. Crowley,** whose transfer to Columbus, Ohio, was reported in the *Railway Age* of January 6.

W. R. Minton, superintendent of the Klamath division of the Great Northern at Klamath Falls, Ore., has been transferred to the Kalispell division, with headquarters at Whitefish, Mont., succeeding **M. C. LaBertew,** who has been granted a leave of absence due to illness. **T. A. Jerrow** has been appointed superintendent of the Klamath division, replacing Mr. Minton.

D. G. Whitfield, chief clerk in the office of the superintendent, communications, of the Southern at Charlotte, N. C., has been promoted to superintendent, communications, with the same headquarters, succeeding John R. Smith, whose appointment as assistant to the vice-president, communications, was announced in the *Railway Age* of January 6, 1945.

W. R. Bevan has been appointed trainmaster of the New Orleans Terminal of the Illinois Central at New Orleans, La., succeeding **Sebra Evans,** who has been transferred to the Memphis Terminal, with headquarters at Memphis, Tenn., where he replaces **A. B. Holt,** who has been assigned to other duties at his own request.

M. M. Killen, assistant division superintendent of the Atchison, Topeka & Santa Fe at Needles, Cal., has been promoted to superintendent of the Missouri division, with headquarters at Marceline, Mo., succeeding **R. J. Yost,** who has been transferred to the Illinois division, with headquarters at Chillicothe, Ill., where he replaces **J. B. Noe** who in turn has been transferred to the Kansas City division, with headquarters at Argentine, Kan.

John H. Spooner, whose promotion to superintendent of Ohio Central division of the New York Central, with headquarters at Columbus, Ohio, was reported in the *Railway Age* of January 6, was born at Columbus in 1888, and entered railway service on April 10, 1910, as a statistician of the New York Central, with headquarters at Columbus. From 1912 to 1922 he served as assistant chief clerk of the general superintendent, and then chief clerk

John H. Spooner

of the superintendent, the general superintendent, and the general manager, all with headquarters at Columbus. On October 25 of the latter year Mr. Spooner was promoted to trainmaster at Zanesville, Ohio, being transferred to Toledo, Ohio, in 1925. On July 1, 1942, he was advanced to assistant superintendent of the Ohio Central division, with headquarters at Columbus, the position he held at the time of his new appointment.

L. M. Olson, trainmaster of the Atchison, Topeka & Santa Fe at El Paso, Tex., has been appointed acting superintendent of the Pecos division, with headquarters at Clovis, N. M., succeeding **Dan Trahey,** who has been granted a leave of absence due to illness. **W. H. Jones,** trainmaster at La Junta, Colo., has been appointed acting superintendent of the Slaton division, with headquarters at Slaton, Tex., relieving, **H. R. McKee,** who has also been granted a leave of absence on account of illness. **R. M. Champion,** day chief dispatcher at Slaton, has been appointed acting trainmaster at La Junta, replacing Mr. Jones.

W. J. Carroll, terminal trainmaster of the Jersey Central at Jersey City, N. J., has been named assistant superintendent of the Central division with the same headquarters, succeeding **Benjamin F. Davis,** whose appointment as assistant to the chief executive officer is announced elsewhere in these columns. **Joseph J. Galuppo,** freight trainmaster at Jersey City, has been named as terminal trainmaster there replacing Mr. Carroll; and **John D. Galuppo,** day assistant trainmaster at Elizabethport, N. J., has been appointed freight trainmaster at Jersey City succeeding his brother Joseph.

G. C. Brown, assistant superintendent of the Alton at Slater, Mo., has been appointed superintendent of the Western division at Bloomington, Ill., succeeding **J. J. Butler,** retired at his own request after 54 years of service with the Alton. **J. F. Donnelly,** heretofore assistant trainmaster at Roodhouse, Ill., has been appointed trainmaster at Slater, and **W. J. Driscoll,** heretofore a supervisor in the maintenance of way department at Bloomington, has been appointed assistant trainmaster at Roodhouse.

Mr. Brown was born at Slater on July 30, 1882, and was educated in the public schools of that community. He entered railroad service in July, 1900, as a brakeman on the Blackwell, Enid & Southwestern (now a part of the Frisco), where he remained until 1902, when he became a brakeman for the Alton at Slater. He was promoted to conductor in October, 1904, and in September, 1911, was appointed assistant trainmaster at Mexico, Mo. In September, 1916, he was advanced to trainmaster at Slater, and was further promoted to assistant superintendent with the same headquarters in May, 1931.

Mr. Butler entered railroad service as a fireman on the Alton, and served as a train rule instructor from 1911 to 1913 when he became road foreman. He was named trainmaster of the Northern division in 1915, and assistant to the general manager the following year. He served as assistant superintendent at Springfield, Ill., from 1917 to 1926, when he transferred to Bloomington in the same capacity, becoming superintendent of the Eastern division with the same headquarters in May, 1927. In August, 1931, he was named superintendent, Western division, the position he held at the time of his recent retirement.

H. D. Graffious, assistant superintendent of the Baltimore & Ohio at Pittsburgh, Pa., has been named superintendent of the Buffalo division with headquarters at Punxsutawney, Pa., succeeding **M. S. Kopp,** who has retired after 54 years of service. **A. W. Colnot,** trainmaster at Akron, Ohio, has been named assistant superintendent at Pittsburgh, succeeding

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Mr. Graffious; and **G. O. Fetzer,** yardmaster at Warren, Ohio, has replaced Mr. Colnot as trainmaster at Akron. **J. E. Maxwell,** assistant superintendent of the Buffalo division at Punxsutawney, has been appointed superintendent of transportation at Pittsburgh succeeding Oscar C. Lott, whose death was reported in the *Railway Age* of December 16.

Mr. Kopp, who was born at Pittsburgh on September 30, 1875, entered railroading in November, 1890, as an office boy on the Baltimore & Ohio's Toledo division and served as a clerk from May, 1892, to May, 1893, when he became a telegraph operator. In April, 1896, he was named train dispatcher, remaining in that post until August, 1909, when he was promoted to chief train dispatcher. He was appointed assistant trainmaster in December, 1910, and was advanced to trainmaster of the Toledo division in February, 1914. In October, 1916, he became assistant superintendent of the Indiana division, and after subsequent transfers to the Toledo and Chicago divisions he was named superintendent of the Monogah division at Grafton, W. Va., in April, 1923. He served as superintendent of the Pittsburgh division from February, 1926, to February, 1932, when he was transferred to Punxsutawney as superintendent of the DuBois division in charge of the Buffalo & Susquehanna and a portion of the Buffalo, Rochester & Pittsburgh (both part of the Baltimore & Ohio). One year later he was named superintendent of the Buffalo division, the position from which he now retires.

Howard R. Hughes, whose promotion to assistant general manager of the Southern Pacific, with headquarters at San Francisco, Cal., was reported in the *Railway Age* of January 6, was born at Williamsport, Pa., on September 19, 1892. He attended Dickinson Seminary at Williamsport, and entered railway service in 1912 as a stenographer and clerk on the

Howard R. Hughes

Pennsylvania at Renova, Pa. In March, 1913, he went with the Southern Pacific as a stenographer at Sacramento, Cal., later serving at various points as secretary to the superintendent, trainmaster's clerk, chief yard clerk and assistant chief clerk to the superintendent. In October, 1917, he was appointed transportation inspector and clerk in the office of the superintendent of transportation at San Francisco, and a year later he was appointed secretary to the assistant general manager at Los Angeles, Cal. In July, 1919, he was promoted to supervisor of transportation at Los Angeles, and in April, 1920, he was appointed chief clerk to the assistant general manager at that point. Mr. Hughes was promoted to trainmaster at Indio, Cal., in October, 1921, later serving at Los Angeles and Watsonville, Cal. In September, 1933, he was advanced to assistant superintendent of the Coast division, with headquarters at San Francisco, and in September, 1937, he was appointed assistant to the general manager, with the same headquarters. In August, 1940, Mr. Hughes was promoted to superintendent of the Tucson division, with headquarters at Tucson, Ariz., and four years later he was transferred to the Western division, with headquarters at Oakland Pier, Cal., remaining in that position until his new appointment.

Eugene D. Moody, whose promotion to superintendent of the Western division of the Southern Pacific, with headquarters at Oakland Pier, Cal., was reported in the *Railway Age* of January 6, was born at Ashland, Ore., on April 18, 1896, and entered railway service with the Southern Pacific as a clerk-caller on the Shasta division in May, 1913. He held a number of minor positions at various points of the road until 1928, when he was advanced to general yardmaster, with headquarters at Roseville, Cal. In 1936 Mr. Moody was promoted to trainmaster of the Sacramento division, and four years later he was trans-

Eugene D. Moody

ferred to the Western division, with headquarters at Oakland Pier. In July, 1941, he was advanced to terminal trainmaster at Oakland, Cal., becoming assistant superintendent of the Western division in 1942. In Februry, 1944, Mr. Moody was promoted to assistant to the general manager, with headquarters at San Francisco, Cal., the position he held at the time of his new appointment.

TRAFFIC

Louis G. Weber, city passenger agent of the Seaboard Air Line at New York, has been promoted to eastern passenger agent with the same headquarters.

Arthur C. Striebel, passenger representative of the Pennsylvania at Chicago, has been promoted to district passenger agent, with the same headquarters, succeeding **William P. Redmond,** whose recent retirement was reported in the *Railway Age* of January 6.

G. M. Hutt, assistant development commissioner of the Canadian Pacific at Winnipeg, Man., has been named development commissioner at Montreal, Que., succeeding **G. G. Ommanney,** who has retired. **W. G. Cowie** has been appointed assistant development commissioner at Winnipeg replacing Mr. Hutt.

Walter H. Browne, foreign freight agent of the Delaware, Lackawanna & Western at New York, has been promoted to general foreign freight agent with the same headquarters. **E. E. Brothers** has been named division freight agent at Scranton, Pa., succeeding **C. V. McKowne,** who has retired after more than 39 years of service.

Edwin Linthicum, district freight agent of the Pennsylvania at Los Angeles, Cal., has been promoted to western freight agent, with the same headquarters. **Theodore F. Lawson,** district freight agent, with headquarters at Rochester, N. Y., has been transferred to Los Angeles, relieving Mr. Linthicum.

Arnult E. Montgomery, commercial agent of the Lehigh Valley at Detroit, Mich., has been promoted to general agent, with headquarters at Cincinnati, Ohio, succeeding **Milton J. Vandewalker,** whose transfer to Indianapolis, Ind., was reported in the *Railway Age* of January 6. **J. M. Berry,** commercial agent at Chicago, has been advanced to general agent, with headquarters at Milwaukee, Wis., replacing **Norbert A. Rahte,** who has retired.

Harold A. Gundersen, assistant general freight agent of the Chicago & North Western at Chicago, has been promoted to general freight agent, with the same headquarters, succeeding **George H. Dumas,** who has resigned to become a member of the Western Classification Committee, also with headquarters at Chicago.

J. A. Reichley, general agent of the Chicago, Indianapolis & Louisville at Winston-Salem, N. C., has been promoted to district traffic manager, with headquarters at Birmingham, Ala. **Charles E. Ragland,** traveling freight agent, has been advanced to assistant district traffic manager, with headquarters as before at Birmingham. **John A. Davidson,** Florida freight agent, with headquarters at Tampa, Fla., has been promoted to general agent at Winston-Salem, succeeding Mr. Reichley.

James K. Williams, whose promotion to general freight agent of the Louisville & Nashville, with headquarters at Louisville, Ky., was reported in the *Railway Age* of December 23, was born at Clarkville, Tenn., on September 12, 1894, and entered railway service on November 1, 1915, in the freight office of the L. & N. at Clarkville. From 1918 to 1920 he served as clerk and chief clerk at Memphis, Tenn., and in the latter year he was promoted to city freight service agent, with the same headquarters. In 1923 Mr. Williams became city freight agent at Louisville, and in 1930 he was advanced to export and

News Department continued on second left-hand page

HSGI *Wear Resisting* PARTS

MODERN POWER, the result of scientific design, depends upon the efficient performance of valves and cylinders under severe operating conditions. That is why so many locomotives have bushings, packings and other parts made from HUNT-SPILLER *Air Furnace* GUN IRON.

Typical of HSGI-equipped modern power are the huge 2-8-8-4's in service on a Mid-Western road. Long-wearing, heat resisting HUNT-SPILLER *Air Furnace* GUN IRON insures the efficiency and economical operation of these locomotives.

HSGI
Reg. U. S. Trade Mark
Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings
Finished Parts
Dunbar Sectional Type Packing
Duplex Sectional Type Packing for Cylinders and Valves (Duplex Springs for Above Sectional Packing)
Cylinder Snap Rings
Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons for Diesel Service

HSGI valve and cylinder bushings ready for application in the erecting shop.

HUNT-SPILLER MFG. CORPORATION

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HUNT-SPILLER GUN IRON
Air Furnace

Freight Operating Statistics of Large Steam Railways—Selected

Region, road, and year		Miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (thousands)	Car-miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos. & tenders	Ton-miles (thousands): Net-rev. and non-rev.	Road locos. on line: Serviceable: Unstored	Road locos. on line: Serviceable: Stored	Road locos. on line: B. O.	Road locos. on line: Per cent B. O.
New England Region:													
Boston & Albany	1944	362	183,253	216,970	41,628	4,593	59.1	315,021	127,444	69	..	24	25.8
	1943	362	166,861	209,298	37,662	4,383	62.5	296,841	127,899	75	..	13	14.8
Boston & Maine	1944	1,806	385,572	470,123	35,513	14,555	69.1	924,980	418,168	149	..	26	14.9
	1943	1,807	432,408	509,170	58,086	15,651	65.0	1,032,921	445,094	149	..	27	15.3
N. Y., New H. & Hartf.†	1944	1,815	454,281	564,899	56,463	17,384	70.0	1,046,690	462,591	216	10	29	15.5
	1943	1,815	534,692	632,696	61,831	19,831	66.2	1,254,901	551,677	231	2	37	18.1
Great Lakes Region:													
Delaware & Hudson	1944	846	316,526	386,513	37,296	13,996	68.6	979,702	519,622	123	56	40	18.3
	1943	848	326,296	399,914	32,756	13,727	67.9	969,508	512,089	140	49	30	13.7
Del., Lack. & Western	1944	971	377,514	441,487	68,370	16,367	68.9	1,078,522	510,177	136	33	35	17.2
	1943	971	392,511	470,355	84,312	17,622	68.9	1,164,601	553,627	159	13	31	15.3
Erie	1944	2,244	1,006,141	1,081,675	79,127	47,728	66.9	3,121,903	1,356,220	322	10	67	16.8
	1943	2,244	1,092,147	1,186,798	95,368	50,811	66.2	3,363,486	1,503,142	315	3	82	20.5
Grand Trunk Western	1944	1,026	251,080	260,213	2,106	8,246	70.0	512,624	231,242	64	2	9	12.0
	1943	1,026	270,291	281,058	2,147	9,196	72.1	553,177	263,358	69	2	11	13.4
Lehigh Valley	1944	1,247	448,813	500,919	73,516	20,168	63.8	1,422,935	688,532	156	..	11	6.6
	1943	1,248	566,018	629,938	111,325	24,524	61.6	1,741,314	826,490	143	..	14	8.9
New York Central	1944	10,325	3,744,598	4,016,460	251,117	145,410	63.4	10,135,475	4,729,783	1,135	25	239	17.1
	1943	10,326	3,945,161	4,260,026	280,022	152,691	62.2	10,800,633	5,020,851	1,167	11	252	17.6
New York, Chi. & St. L.	1944	1,656	721,919	734,922	9,448	29,725	70.2	1,898,043	868,682	162	27	20	9.6
	1943	1,657	902,436	923,760	12,282	35,264	66.6	2,325,921	1,066,043	162	..	13	7.4
Pere Marquette	1944	1,915	452,542	464,192	10,695	15,913	68.4	1,050,952	504,586	147	..	19	11.4
	1943	1,949	463,821	484,697	13,305	15,211	64.4	1,041,491	487,213	137	..	25	15.4
Pitts. & Lake Erie	1944	229	92,300	97,634	4	4,037	64.9	342,116	200,934	31	1	13	25.9
	1943	229	95,871	100,181	46	4,161	66.5	357,538	215,496	34	3	11	28.9
Wabash	1944	2,381	781,217	802,492	20,022	29,419	72.1	1,878,482	883,952	176	3	38	17.5
	1943	2,381	821,525	848,375	19,049	31,203	70.2	2,040,569	965,935	181	6	35	15.8
Central Eastern Region:													
Baltimore & Ohio	1944	6,100	2,465,299	3,083,767	312,737	88,243	64.9	6,371,373	3,190,908	913	6	223	19.5
	1943	6,111	2,552,505	3,188,575	356,998	89,063	63.7	6,477,783	3,224,533	911	1	219	19.4
Central of New Jersey†	1944	654	221,809	261,194	59,539	8,393	63.1	615,037	314,253	116	13	23	15.1
	1943	657	268,518	310,706	66,150	9,242	62.3	663,275	332,284	120	4	18	12.7
Chicago & Eastern Ill.	1944	912	255,130	258,055	4,785	7,971	63.2	549,055	254,338	71	6	4	4.9
	1943	912	280,778	288,421	7,151	8,513	59.1	609,994	273,505	76	..	7	8.4
Elgin, Joliet & Eastern	1944	392	132,820	136,964	3,674	3,806	67.1	294,541	160,510	65	..	11	14.5
	1943	392	139,454	142,197	2,344	3,900	66.5	305,691	156,476	67	..	10	13.0
Long Island	1944	372	37,236	38,911	17,191	432	58.9	30,010	13,115	49	..	3	5.8
	1943	374	42,000	43,290	15,844	447	55.9	33,604	13,917	40	..	7	14.9
Pennsylvania System	1944	9,872	4,659,371	5,439,895	738,734	181,590	63.8	13,048,481	6,366,831	2,014	1	194	8.8
	1943	9,920	4,758,621	5,605,123	753,028	184,524	63.8	13,281,489	6,558,389	1,984	..	178	8.2
Reading	1944	1,409	598,906	679,320	88,368	20,377	66.7	1,531,545	841,945	271	12	49	14.8
	1943	1,416	581,924	653,577	82,775	18,878	65.6	1,436,632	786,163	271	15	36	11.2
Pocahontas Region:													
Chesapeake & Ohio	1944	3,032	1,106,200	1,189,803	55,234	51,865	56.9	4,499,311	2,568,935	433	19	63	12.2
	1943	3,027	1,152,535	1,250,060	60,056	54,226	56.5	4,709,167	2,725,604	415	1	72	14.8
Norfolk & Western	1944	2,132	786,669	832,785	55,587	36,464	60.1	3,116,661	1,701,291	277	32	22	6.6
	1943	2,132	792,898	840,713	58,452	36,125	59.1	3,153,950	1,733,123	295	21	15	4.5
Southern Region:													
Atlantic Coast Line	1944	4,952	1,025,287	1,036,615	14,294	27,194	62.8	1,819,084	795,669	376	11	30	7.2
	1943	4,947	940,105	954,410	13,772	25,765	65.6	1,736,124	806,046	373	16	21	5.4
Central of Georgia†	1944	1,783	306,558	313,305	4,653	7,585	70.9	488,478	227,542	88	..	18	17.0
	1943	1,783	337,399	346,476	5,704	8,196	70.4	536,741	251,933	95	..	11	10.4
Gulf, Mobile & Ohio	1944	1,941	290,734	373,452	2,749	11,046	77.3	679,313	332,443	104	5	9	7.6
	1943	1,962	316,748	403,319	1,766	11,147	73.8	713,828	352,024	110	1	12	9.8
Illinois Central (incl.	1944	6,347	1,677,612	1,691,672	31,451	64,784	62.7	4,523,847	2,096,236	651	..	45	6.5
Yazoo & Miss. Vy.)	1943	6,347	1,726,252	1,740,961	32,846	67,093	64.2	4,663,452	2,204,536	587	..	98	14.3
Louisville & Nashville	1944	4,734	1,581,191	1,716,342	43,857	42,090	65.5	2,965,282	1,535,068	407	12	65	13.4
	1943	4,736	1,596,932	1,731,806	46,788	41,410	63.4	2,971,184	1,512,201	406	15	57	11.9
Seaboard Air Line*	1944	4,161	855,475	916,448	16,446	25,332	70.2	1,645,274	764,853	292	3	49	14.2
	1943	4,164	871,424	1,027,942	15,670	24,801	69.7	1,620,872	776,762	308	4	31	9.0
Southern	1944	6,471	2,158,573	2,202,420	40,011	49,836	69.7	3,149,347	1,448,420	592	..	95	13.8
	1943	6,478	2,185,976	2,248,058	33,595	49,555	70.5	3,157,813	1,480,577	597	..	84	12.3
Northwestern Region:													
Chi. & North Western	1944	8,074	1,157,754	1,211,029	24,158	38,540	68.0	2,589,291	1,194,740	373	6	109	22.3
	1943	8,098	1,214,937	1,274,989	26,777	40,411	66.3	2,721,715	1,313,357	385	17	104	20.6
Chicago Great Western	1944	1,445	289,331	298,226	11,816	9,700	75.0	608,724	281,296	73	..	7	8.8
	1943	1,445	302,262	309,996	12,527	9,853	70.4	652,398	299,663	72	..	8	10.0
Chi., Milw., St. P. & Pac.†	1944	10,715	1,549,413	1,647,692	83,775	57,421	70.8	3,729,472	1,800,739	499	40	69	11.3
	1943	10,732	1,721,240	1,835,974	95,143	59,938	68.8	4,029,491	1,956,719	522	15	75	12.3
Chi., St. P., Minneap. & Om.	1944	1,606	212,394	230,967	12,971	5,922	71.1	390,817	181,800	94	25	13	9.8
	1943	1,606	251,434	270,008	14,889	6,711	67.2	467,662	219,567	93	27	9	7.0
Duluth, Missabe & I. R.	1944	547	157,504	158,128	1,102	8,600	50.5	790,263	477,786	53	..	2	3.6
	1943	543	182,830	183,583	1,229	9,840	51.1	900,417	545,399	63	3	2	2.9
Great Northern	1944	8,276	1,454,836	1,462,247	63,695	59,283	65.4	4,214,955	2,013,578	433	8	51	10.4
	1943	8,212	1,443,945	1,447,873	57,362	55,958	63.2	4,151,647	2,030,951	419	5	39	8.4
Min., St. P. & S. St. M.	1944	4,259	469,480	483,606	7,915	13,805	66.2	937,547	444,626	130	3	5	3.6
	1943	4,258	539,613	553,754	11,482	15,241	64.3	1,090,166	530,822	132	2	4	2.9
Northern Pacific	1944	6,571	1,045,503	1,121,066	82,914	45,458	72.2	3,019,511	1,487,513	382	8	61	13.5
	1943	6,572	1,085,260	1,158,513	83,505	44,511	73.1	3,030,376	1,574,632	372	15	52	11.8
Central Western Region:													
Alton†	1944	915	290,694	314,434	724	8,187	70.8	530,432	227,329	72	1	5	6.4
	1943	915	278,494	297,962	705	7,811	71.6	505,620	215,636	69	1	6	7.9
Atch., Top. & S. Fe (incl.	1944	13,093	3,660,896	3,888,918	224,063	145,529	71.2	9,069,031	3,739,536	856	4	123	12.5
G. C. & S. F. & P. & S. F.)	1943	13,148	3,225,463	3,483,847	224,308	116,051	68.6	7,601,132	3,206,767	842	..	85	9.2
Chi., Burl. & Quincy	1944	8,791	1,608,733	1,693,696	51,697	63,888	67.4	4,256,862	1,971,327	481	..	59	10.9
	1943	8,827	1,657,390	1,735,413	53,573	58,299	63.6	4,151,211	1,907,000	480	..	63	11.6
Chi., Rock I. & Pac.†	1944	7,718	1,358,313	1,415,439	14,501	43,668	71.3	2,760,534	1,263,143	393	..	75	16.0
	1943	7,718	1,312,968	1,391,578	17,753	40,380	69.5	2,628,141	1,201,997	396	..	72	15.4
Denver & R. G. Wn.†	1944	2,388	542,827	611,175	94,099	19,972	76.5	1,220,596	579,992	175	1	38	17.8
	1943	2,405	505,300	600,796	104,142	18,011	71.8	1,146,354	545,232	192	..	34	15.0
Southern Pacific—Pac. Lines	1944	8,193	2,299,354	2,638,971	419,588	100,514	69.7	6,454,900	2,721,732	850	..	128	13.1
	1943	8,210	2,334,071	2,647,456	407,913	100,064	71.6	6,280,487	2,749,667	806	1	141	14.9
Union Pacific	1944	9,782	3,479,274	3,711,407	303,812	137,219	68.7	8,729,166	3,786,691	868	5	64	6.8
	1943	9,798	3,379,618	3,579,449	293,031	124,732	69.0	8,007,036	3,503,571	829	..	61	6.9
Southwestern Region:													
Mo.-Kans.-Texas Lines	1944	3,241	752,960	778,328	13,844	21,795	64.9	1,430,391	650,971	155	..	15	8.8
	1943	3,281	824,253	854,944	14,306	22,317	58.9	1,543,783	666,737	151	..	21	12.2
Missouri Pacific†	1944	7,071	1,706,688	1,792,037	44,168	62,972	67.1	4,190,686	1,904,487	483	1	60	11.0
	1943	7,069	1,805,194	1,879,072	45,815	63,998	65.1	4,386,208	2,020,076	477	2	69	12.6
Texas & Pacific	1944	1,882	448,261	448,261	9,195	15,723	67.6	1,028,613	437,427	129	13	14	9.0
	1943	1,882	393,507	393,507	7,856	12,859	68.9	844,916	378,679	114	15	14	9.8
St. Louis-San Francisco†	1944	4,616	1,133,133	1,226,294	28,073	28,865	69.6	1,874,715	869,682	319	..	31	8.9
	1943	4,634	1,164,702	1,247,557	28,210	29,211	65.0	1,967,942	894,678	335	..	26	7.2
St. Louis-San Fran. & Texas	1944	159	32,815	34,328	3	503	71.1	32,240	13,856	8	..	..	..
	1943	159	34,490	35,290	18	513	66.1	33,942	14,797	10	..	1	9.1
St. Louis Southw. Lines†	1944	1,600	463,084	471,044	6,514	17,813	72.0	1,106,752	514,827	116	6	18	12.9
	1943	1,600	545,805	552,168	7,792	18,062	64.8	1,181,982	511,354	115	1	21	15.3
Texas & New Orleans	1944	4,333	1,155,838	1,159,266	28,737	30,911	65.6	2,067,473	906,788	263	..	21	7.4
	1943	4,339	1,261,310	1,274,617	49,795	34,686	66.1	2,315,634	1,031,793	265	..	15	5.4

* Report of receivers.
† Report of trustee or trustees.

Items for the Month of October 1944 Compared with October 1943

Region, road, and year		Freight cars on line: Home	Foreign	Total	Per Cent B. O.	G.t.m. per train-hr. excl.locos. and tenders	G.t.m. per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Coal lb. per 1000 g.t.m. inc. loco.	Mi. per loco. per day
New England Region:														
Boston & Albany	1944	312	6,210	6,522	0.3	25,109	1,733	701	27.7	623	38.0	11,357	185	97.6
	1943	375	5,376	5,751	0.4	26,032	1,789	771	29.2	697	38.2	11,397	177	100.7
Boston & Maine	1944	2,131	11,480	13,611	3.2	37,449	2,406	1,088	28.7	1,017	51.2	7,469	98	90.1
	1943	2,311	10,549	12,860	3.0	36,323	2,404	1,036	28.4	1,135	61.4	7,946	91	109.4
N. Y., New H. & Hartf.†	1944	2,860	19,098	21,958	3.5	33,486	2,333	1,031	26.6	649	34.9	8,222	100	80.8
	1943	3,552	22,583	26,135	2.5	33,209	2,379	1,046	27.8	657	35.7	9,805	101	89.7
Great Lakes Region:														
Delaware & Hudson	1944	3,445	6,515	9,960	2.8	53,641	3,115	1,652	37.1	1,700	66.7	19,813	102	65.4
	1943	3,533	5,436	8,969	2.8	48,560	2,983	1,576	37.3	1,757	69.3	19,480	103	65.3
Del., Lack. & Western	1944	5,236	12,560	17,796	3.0	42,333	2,884	1,364	31.2	904	42.1	16,949	120	89.1
	1943	6,095	12,435	18,530	2.8	42,974	3,018	1,435	31.4	954	44.1	18,392	121	94.8
Erie	1944	6,956	28,728	35,684	2.8	51,307	3,119	1,355	28.4	1,186	62.4	19,496	92	101.4
	1943	9,212	27,472	36,684	2.4	50,398	3,094	1,383	29.6	1,318	67.3	21,608	93	110.8
Grand Trunk Western	1944	2,246	7,296	9,542	3.4	41,602	2,051	925	28.0	759	38.6	7,270	89	118.1
	1943	2,031	5,000	7,031	4.0	42,667	2,054	978	28.6	1,087	52.6	8,280	84	118.3
Lehigh Valley	1944	5,608	19,613	25,221	1.9	51,890	3,245	1,570	34.1	821	37.7	17,811	107	117.1
	1943	6,171	21,663	27,834	1.7	49,562	3,162	1,501	33.7	977	47.1	21,363	106	158.7
New York Central	1944	43,969	102,521	146,490	2.8	42,514	2,739	1,278	32.5	1,029	49.9	14,777	103	109.6
	1943	46,876	102,613	149,489	2.8	42,579	2,776	1,290	32.9	1,082	52.9	15,685	99	114.5
New York, Chi. & St. L.	1944	2,383	13,656	16,039	2.2	49,444	2,640	1,208	29.2	1,754	85.5	16,921	87	121.2
	1943	2,933	14,214	17,147	2.6	47,823	2,599	1,191	30.2	1,991	98.9	20,753	85	180.8
Pere Marquette	1944	2,231	10,251	12,482	2.3	40,263	2,352	1,129	31.7	1,316	60.7	8,500	89	99.5
	1943	2,824	9,370	12,194	2.0	37,946	2,265	1,060	32.0	1,377	66.7	8,064	90	106.8
Pitts. & Lake Erie	1944	3,450	8,992	12,442	5.3	50,933	3,707	2,177	49.8	515	15.9	28,305	94	77.4
	1943	3,455	8,263	11,718	4.2	50,671	3,735	2,251	51.8	549	15.9	30,356	91	74.3
Wabash	1944	5,855	15,414	21,269	3.2	46,323	2,430	1,143	30.0	1,422	65.7	11,976	102	127.5
	1943	5,391	14,169	19,560	1.6	45,863	2,509	1,188	31.0	1,517	69.8	13,087	104	130.8
Central Eastern Region:														
Baltimore & Ohio	1944	39,423	64,283	103,706	3.0	30,576	2,642	1,323	36.2	1,010	43.1	16,874	146	99.3
	1943	39,925	58,745	98,670	2.5	31,330	2,593	1,291	36.2	1,069	46.4	17,021	144	106.0
Central of New Jersey†	1944	7,190	12,197	19,387	3.2	34,076	2,783	1,422	37.4	505	21.4	15,500	121	87.5
	1943	4,367	21,083	25,450	1.8	29,082	2,495	1,250	36.0	424	18.9	16,315	138	106.2
Chicago & Eastern Ill.	1944	2,209	4,084	6,293	4.8	37,447	2,203	1,020	31.9	1,285	63.7	8,996	110	107.1
	1943	2,155	4,791	6,946	3.4	37,199	2,210	991	32.1	1,278	67.3	9,674	116	115.6
Elgin, Joliet & Eastern	1944	9,101	6,237	15,338	2.3	18,563	2,360	1,286	42.2	334	11.8	13,209	136	84.7
	1943	8,790	6,697	15,487	4.0	17,990	2,297	1,176	40.1	330	12.4	12,877	127	87.5
Long Island	1944	40	5,664	5,704	.3	6,780	831	363	30.4	75	4.2	1,137	296	51.8
	1943	32	4,884	4,916	.4	6,673	828	343	31.1	87	5.0	1,200	295	56.9
Pennsylvania System	1944	113,314	120,610	233,924	3.7	38,688	2,887	1,409	35.1	872	39.0	20,804	120	97.9
	1943	115,463	125,107	240,570	3.3	37,952	2,877	1,421	35.5	901	39.7	21,327	120	101.8
Reading	1944	12,043	26,821	38,864	2.0	31,535	2,558	1,406	41.3	697	25.3	19,276	122	86.1
	1943	10,759	23,670	34,429	1.7	30,607	2,474	1,354	41.6	729	26.7	17,910	124	82.9
Pocahontas Region:														
Chesapeake & Ohio	1944	36,448	18,058	54,506	1.2	57,388	4,114	2,349	49.5	1,507	53.5	27,331	76	85.4
	1943	37,776	19,866	57,642	1.2	55,999	4,134	2,393	50.3	1,553	54.7	29,046	77	93.7
Norfolk & Western	1944	31,728	8,245	39,973	1.5	62,835	4,024	2,197	46.7	1,389	49.5	25,741	88	93.3
	1943	31,017	6,673	37,690	2.6	62,824	4,059	2,230	48.0	1,470	51.8	26,223	88	93.9
Southern Region:														
Atlantic Coast Line	1944	8,329	21,593	29,922	1.6	29,763	1,785	781	29.3	935	50.9	5,183	105	86.8
	1943	7,722	19,117	26,839	3.1	30,650	1,855	861	31.3	996	48.6	5,256	109	85.3
Central of Georgia†	1944	1,913	6,928	8,841	1.3	29,642	1,602	746	30.0	864	40.6	4,117	128	102.3
	1943	2,261	6,109	8,370	1.4	29,041	1,605	753	30.7	971	44.8	4,558	121	109.3
Gulf, Mobile & Ohio	1944	1,670	7,330	9,000	.8	39,163	2,344	1,147	30.1	1,204	51.8	5,525	113	108.5
	1943	2,166	6,170	8,336	1.1	39,872	2,262	1,116	31.6	1,279	54.9	5,788	116	111.1
Illinois Central (incl. Yazoo & Miss. Vy.)	1944	17,784	36,085	53,869	1.1	42,405	2,756	1,277	32.4	1,247	61.5	10,654	117	83.2
	1943	19,941	34,824	54,765	.9	42,769	2,761	1,305	32.9	1,360	64.4	11,204	115	88.1
Louisville & Nashville	1944	29,000	15,243	44,243	3.7	29,429	1,875	971	36.5	1,134	47.4	10,460	131	123.6
	1943	30,015	14,934	44,949	2.2	28,205	1,861	947	36.5	1,062	45.9	10,300	129	125.1
Seaboard Air Line*	1944	6,225	18,745	24,970	2.0	32,912	1,958	910	30.2	1,036	48.9	5,930	122	96.4
	1943	6,864	16,989	23,853	1.4	32,170	1,896	909	31.3	1,078	49.4	6,017	116	106.5
Southern	1944	16,248	35,508	51,756	2.3	24,498	1,484	682	29.1	905	44.6	7,220	148	110.5
	1943	16,398	30,576	46,974	1.9	25,279	1,466	687	29.9	1,021	48.5	7,373	144	114.4
Northwestern Region:														
Chi. & North Western	1944	20,886	33,261	54,147	3.1	34,978	2,310	1,066	31.0	705	33.5	4,773	117	87.4
	1943	20,425	32,156	52,581	4.1	34,035	2,318	1,119	32.5	785	36.5	5,232	119	88.5
Chicago Great Western	1944	821	5,154	5,975	1.3	37,068	2,109	974	29.0	1,561	71.8	6,280	122	129.5
	1943	949	5,063	6,012	1.1	38,145	2,167	996	30.4	1,564	73.0	6,690	115	136.4
Chi., Milw., St. P. & Pac.†	1944	21,093	30,722	51,815	2.0	38,209	2,423	1,170	31.4	1,083	48.8	5,421	113	98.1
	1943	23,642	31,197	54,839	1.3	35,290	2,358	1,145	32.6	1,130	50.3	5,881	117	109.5
Chi., St. P., Minneap. & Om.	1944	837	6,446	7,283	5.3	25,793	1,879	874	30.7	797	36.5	3,652	106	63.5
	1943	1,141	7,801	8,942	4.3	27,357	1,918	901	32.7	812	36.9	4,410	106	73.8
Duluth, Missabe & I. R.	1944	15,000	461	15,461	3.5	88,944	5,144	3,110	55.6	990	35.3	28,176	63	108.9
	1943	15,025	364	15,389	2.8	86,115	5,066	3,069	55.4	1,142	40.3	32,401	64	106.9
Great Northern	1944	21,253	23,652	44,905	1.8	43,078	2,919	1,394	34.0	1,404	63.2	7,848	96	108.5
	1943	22,758	25,767	48,525	1.6	42,272	2,901	1,419	36.3	1,416	61.7	7,977	93	112.8
Min., St. P. & S. St. M.	1944	5,802	7,181	12,983	2.4	35,105	2,010	953	32.2	1,065	50.0	3,368	89	117.6
	1943	6,289	7,661	13,950	2.4	34,986	2,064	1,005	34.8	1,227	54.8	4,021	89	137.4
Northern Pacific	1944	14,860	19,990	34,850	2.6	43,189	2,898	1,427	32.7	1,285	54.4	7,302	132	93.6
	1943	18,057	18,804	36,861	2.6	42,028	2,814	1,462	35.4	1,397	54.0	7,729	129	98.8
Central Western Region:														
Alton†	1944	1,335	7,030	8,365	2.2	39,733	1,844	790	27.8	853	43.4	8,014	108	135.6
	1943	893	7,118	8,011	2.4	39,847	1,833	782	27.6	853	43.1	7,602	122	133.3
Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F.)	1944	40,445	53,298	93,743	2.7	43,694	2,493	1,028	25.7	1,285	70.3	9,213	109	140.8
	1943	44,229	44,863	89,092	2.2	40,233	2,375	1,002	27.6	1,153	60.8	7,868	115	134.9
Chi., Burl. & Quincy	1944	15,204	35,739	50,943	2.1	41,272	2,660	1,232	30.9	1,270	61.1	7,234	114	110.4
	1943	13,327	30,990	44,317	1.5	38,917	2,470	2,516	32.2	1,331	62.8	6,969	103	112.7
Chi., Rock I. & Pac.†	1944	9,598	25,790	35,388	3.1	35,861	2,051	939	28.9	1,184	57.4	5,279	107	103.0
	1943	11,821	21,701	33,522	2.7	33,986	2,012	920	29.8	1,180	57.1	5,024	113	102.5
Denver & R. G. Wn.†	1944	7,624	10,089	17,713	3.2	31,944	2,279	1,083	29.0	1,048	47.2	7,835	165	109.5
	1943	8,364	10,331	18,695	2.1	29,047	2,304	1,096	30.3	916	42.2	7,313	178	105.4
Southern Pacific—Pac. Lines	1944	24,689	60,731	85,420	2.3	36,693	2,829	1,193	27.1	1,008	53.4	10,716	101	106.9
	1943	25,757	63,624	89,381	2.4	36,432	2,709	1,186	27.5	1,012	51.4	10,804	102	110.0
Union Pacific	1944	25,770	50,152	75,922	2.3	46,872	2,533	1,099	27.6	1,641	86.6	12,487	121	144.9
	1943	26,700	47,789	74,489	1.9	42,620	2,406	1,053	28.1	1,502	77.5	11,535	126	144.3
Southwestern Region:														
Mo.-Kans.-Texas Lines	1944	1,459	9,174	10,633	0.4	34,124	1,906	867	29.9	2,184	112.6	6,479	82	154.5
	1943	2,243	8,562	10,805	1.0	34,214	1,881	813	29.9	2,137	121.4	6,555	83	168.4
Missouri Pacific†	1944	10,673	28,362	39,035	1.7	40,877	2,468	1,122	30.2	1,555	76.6	8,688	107	116.9
	1943	10,202	33,135	43,337	1.1	41,074	2,440	1,124	31.6	1,484	72.2	9,218	103	119.7
Texas & Pacific	1944	1,520	7,746	9,266	1.3	40,849	2,307	981	27.8	1,495	79.4	7,498	86	102.4
	1943	1,533	7,029	8,562	.8	39,785	2,176	975	29.4	1,479	72.9	6,491	87	98.3
St. Louis-San Francisco†	1944	5,585	13,581	19,166	1.9	32,418	1,665	772	30.1	1,458	69.5	6,078	132	121.1
	1943	7,485	12,105	19,590	3.0	32,975	1,695	771	30.6	1,446	72.7	6,228	130	118.7
St. Louis-San Fran. & Texas	1944	.....	246	246	8.9	21,197	983	423	27.5	1,699	86.7	2,811	124	132.4
	1943	.....	265	265	12.5	19,826	994	433	28.8	1,788	93.7	3,002	126	110.8
St. Louis Southw. Lines†	1944	1,058	7,900	8,958	.9	39,461	2,396	1,115	28.9	1,934	92.9	10,380	81	116.6
	1943	1,203	6,859	8,062	.9	34,233	2,174	941	28.3	2,062	112.5	10,310	84	137.2
Texas & New Orleans	1944	3,469	18,330	21,799	2.4	31,322	1,805	792	29.3	1,317	68.5	6,751	91	140.2
	1943	4,051	20,820	24,871	1.9	31,722	1,861	829	29.7	1,326	67.5	7,671	86	157.3

* Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

import agent, with headquarters at New York. In 1935 he was promoted to commercial agent and one year later to general agent at Louisville. In 1936 Mr. Williams was transferred to Detroit, Mich., and in 1937 he was promoted to foreign freight agent, with headquarters at Louisville, holding that position until his new appointment.

Cloyde A. Brower, whose promotion to coal freight agent of the Wabash, with headquarters at Detroit, Mich., was reported in the *Railway Age* of December 23, was born at Delphos, Ohio, on March 12, 1904. He entered railway service with the Wabash on June 15, 1929, as a clerk at Detroit, and on November 1, 1936, he

Cloyde A. Brower

was advanced to chief clerk to the assistant freight traffic manager, with the same headquarters. On October 1, 1942, Mr. Brower was promoted to city freight agent, also at Detroit, holding that position until his new appointment, effective December 15.

ENGINEERING & SIGNALING

Frederick B. Tapley, whose retirement as engineer maintenance of way of the Canadian National, with headquarters at Winnipeg, Man., was reported in the *Railway Age* of December 23, was born at St. John, N. B., on October 17, 1876, and entered railway service in April, 1890, as a messenger and clerk of the Intercolonial Railway of Canada (now a part of the Canadian National) at St. John. From 1903 to 1916 he served as rodman, instrumentman, resident engineer and assistant engineer, maintenance of way, of the Canadian Pacific, with headquarters at St. John, Brownsville Junction, Me., London, Ont., and Montreal, Que. In July, 1916, Mr. Tapley went with the Canadian National as an assistant engineer, and between that date and May, 1923, he was promoted to assistant engineer, maintenance of way, and engineer, maintenance of way, with headquarters at Moncton, N. B. In May, 1923, he was transferred to Edmonton, Alta., and ten years later to Winnipeg, Man., remaining in the latter location until his retirement.

M. M. Churchill, division engineer of the Canadian National, with headquarters at Prince Albert, Sask., has been transferred to Kamloops, B. C.

MECHANICAL

Ralph Logeman, general roundhouse foreman of the Chicago Great Western at Oelwein, Iowa, has been promoted to master mechanic, with the same headquarters.

Albert V. James, assistant associate director of the rail division of the Office of Defense Transportation, in charge of the mechanical section field staff for the entire United States, with headquarters at Chicago, has been appointed chief mechanical officer of the United States railway mission in Mexico, with headquarters at Mexico City, D. F.

K. F. Nystrom, mechanical assistant, chief operating officer, of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., has been appointed chief mechanical officer, a change of title. **A. G. Hoppe,** assistant to the mechanical assistant, chief operating officer, has been appointed assistant chief mechanical officer, with headquarters as before at Milwaukee, also a change of title. **J. L. Brossard,** division master mechanic at Chicago, has been promoted to assistant superintendent of motive power, with headquarters at Milwaukee, succeeding **R. C. Hempstead,** who is being relieved of that position at his own request and has been appointed division master mechanic, with headquarters at La Crosse, Wis., where he replaces **H. E. Niksch** who, in turn, has been transferred to Chicago relieving Mr. Brossard. **W. C. Marshall,** assistant superintendent of motive power, has been appointed assistant superintendent of motive power in charge of Diesel operation, with headquarters as before at Milwaukee. **A. V. Nystrom,** general car foreman at Kansas City, Mo., has been advanced to assistant to the superintendent of the car department, with headquarters at Milwaukee, and **M. P. Hannon** has been appointed mechanical inspector at Milwaukee.

SPECIAL

H. J. Nevin has been appointed vice-chairman, Canadian Passenger Association, Eastern Lines, at Montreal, Que., succeeding **J. C. O'Brien,** who has retired.

OBITUARY

Robert H. Bunnell, who retired in January, 1944, as auditor of the Missouri Pacific, with headquarters at Palestine, Tex., died in a hospital in that city recently.

Daniel W. Vaughan, who retired in 1942 as northwestern traffic agent of the Central of Georgia, with headquarters at Chicago, died at Kansas City, Mo., on January 1.

Charles F. Osborn, who retired in 1918 as a general agent of the Erie, with headquarters at Denver, Colo., died in that city recently.

G. A. Masengill, assistant general auditor of the Clinchfield at Erwin, Tenn., died in a hospital at Johnson City, Tenn., on January 2.

Joseph Weidel, who retired in January, 1943, as valuation engineer of the Atchison, Topeka & Santa Fe System, with headquarters at Chicago, died at National City, Cal., on January 6.

Truman P. Brewster, superintendent of telegraph of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, died in his railway business car near Gallup, N. M., on January 7. Mr. Brewster was born at Azusa, Cal., on January 28, 1893, and started his career as a Western Union apprentice operator at Azusa, Cal., in 1909, and entered the service of the Santa Fe in 1914. He later became telegraph and telephone supervisor on the Coast Lines, with headquarters at Los Angeles, and in November, 1929, he was advanced to assistant superintendent of telegraph, with the same headquarters. On January 1, 1939, Mr. Brewster was promoted to superintendent of telegraph, at Topeka, Kan., and in December of the same year he moved his headquarters to Chicago. At the time of his death he was vice-chairman of the Communications Section of the Association of American Railroads.

Hugh Ronalds, superintendent of motive power of the Lehigh & New England at Pen Argyl, Pa., whose death on December 20 was reported in the *Railway Age* of December 30, was born at Brooklyn, N. Y., on February 22, 1888, and entered railroading in 1906 as a locomotive fireman on the Long Island. He joined the Lehigh & New England in the same capacity on November 18, 1913, and became a locomotive engineer the following May. After serving with the merchant marine as a marine engineer from 1918 to 1922, he rejoined the Lehigh & New England as locomotive engineer, and was named road foreman of engines in March of the following year. He was appointed assistant master mechanic on January 1, 1929, and master mechanic on February 1, 1930. He was promoted to superintendent of motive power on May 20, 1931, remaining in that post until his death.

Henry Hildreth Pease, secretary of the Lehigh & New England and vice-president and secretary of the Lehigh Coal & Navigation Co., at Philadelphia, Pa., died there on January 3. Mr. Pease was born at Wilkes-Barre, Pa., on January 2, 1878, and attended Lawrenceville Academy and Princeton University, from which he received his B. S. degree in 1899. He was elected treasurer of the Lehigh & New England on May 12, 1913, and became its secretary and treasurer on January 26, 1916. He had previously been elected treasurer of the Lehigh Coal & Navigation Co. on March 24, 1913, and became its secretary and treasurer in December, 1915, and vice-president and secretary in January, 1922.

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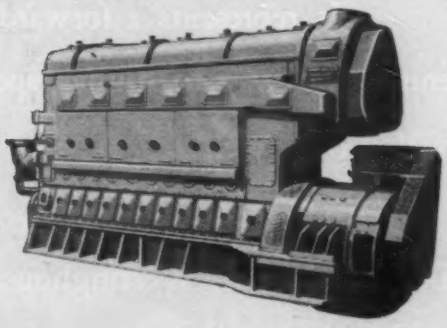

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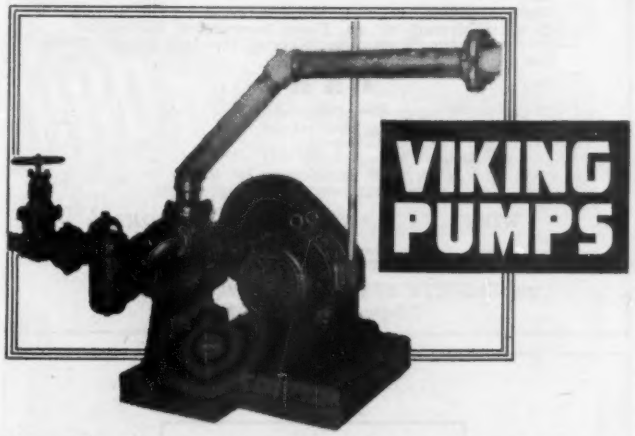

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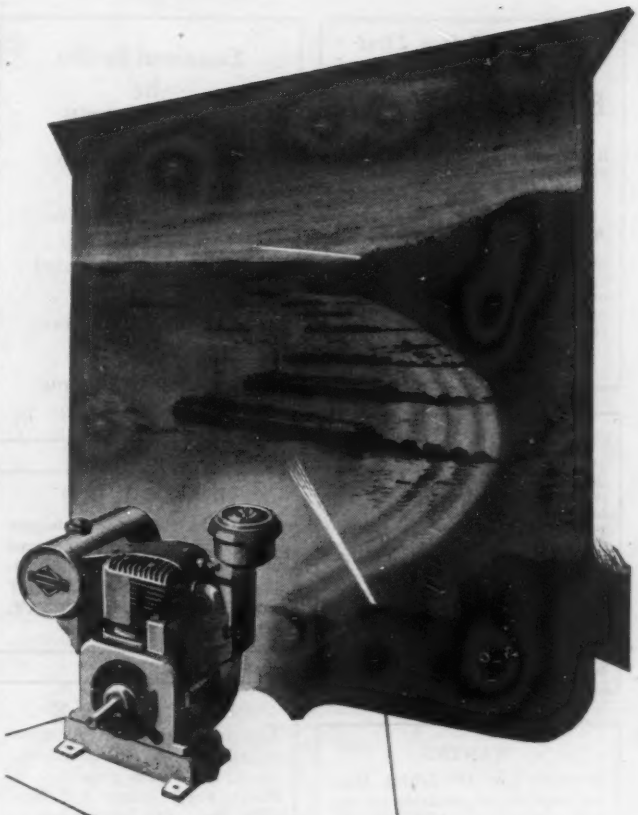

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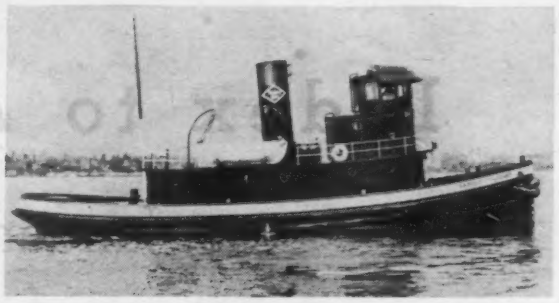

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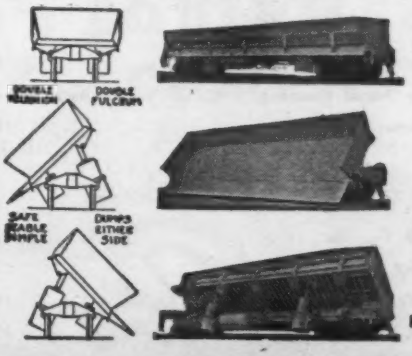

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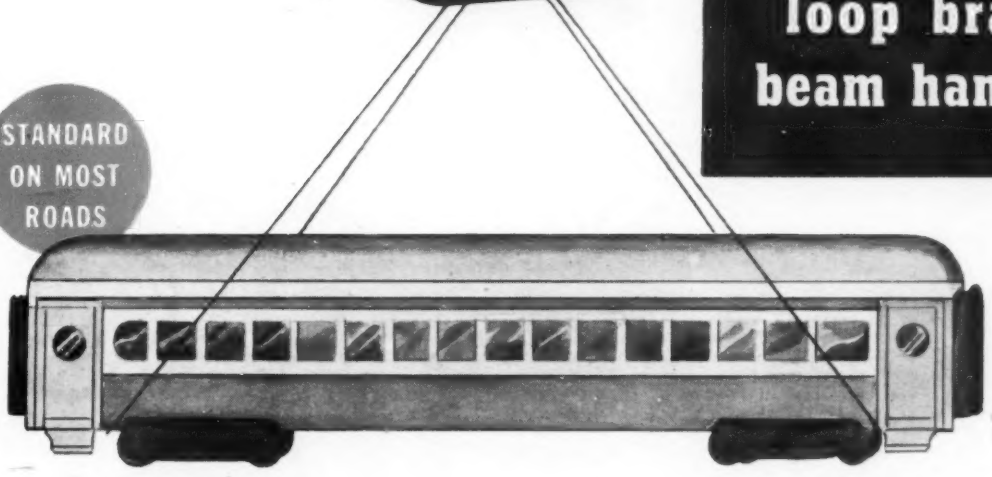

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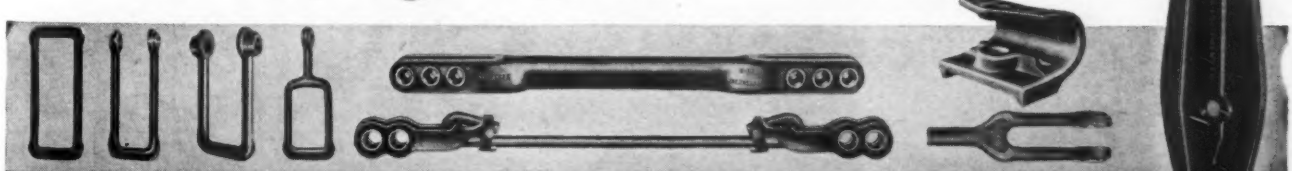

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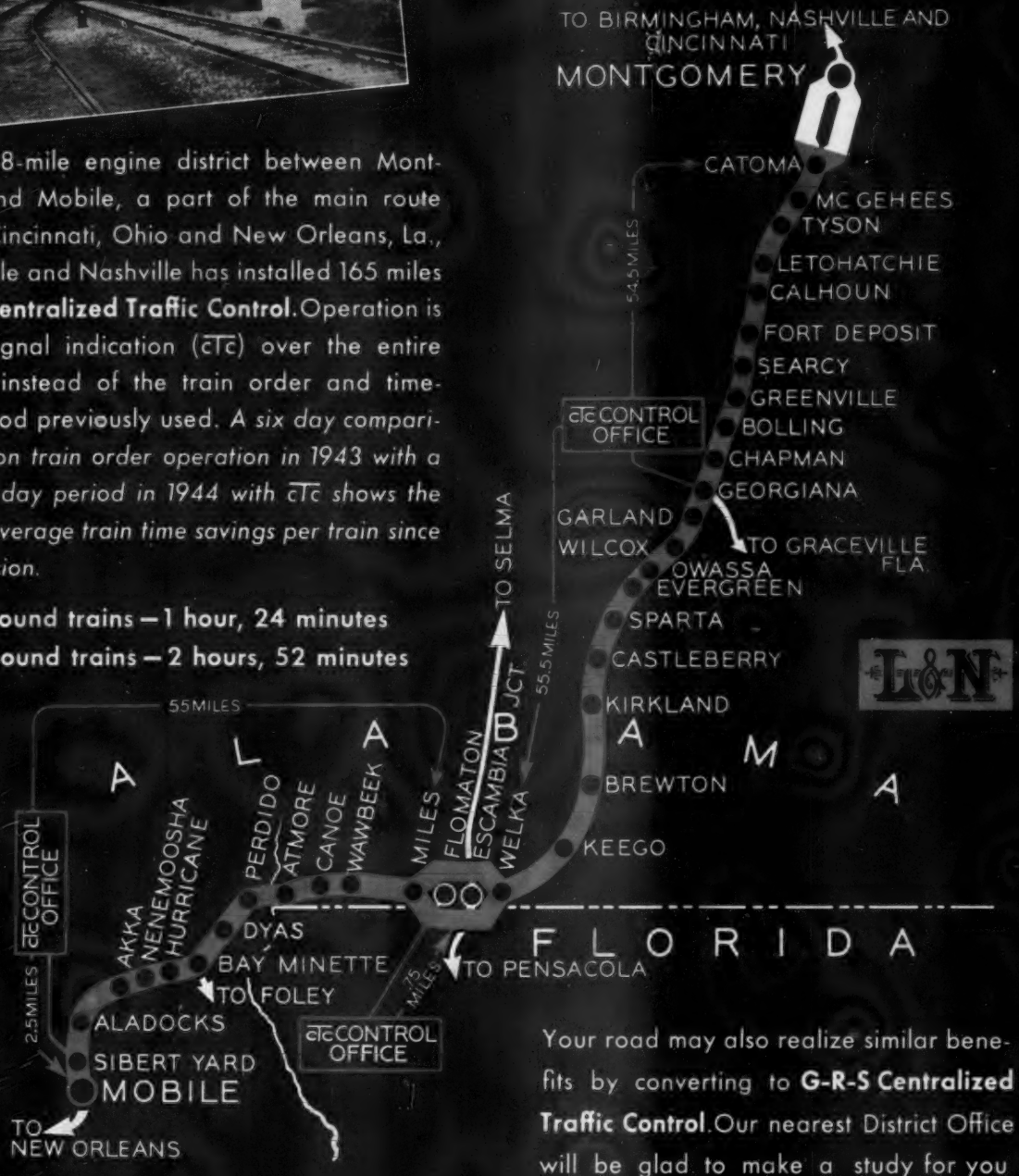

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